Toward a new paradigm for bioethics: ecological and theological contributions

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TOWARD A NEW PARADIGM FOR BIOETHICS: ECOLOGICAL AND THEOLOGICAL CONTRIBUTIONS

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ABSTRACT

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TOWARDS A NEW PARADIGM FOR BIOETHICS:
ECOLOGICAL AND THEOLOGICAL CONTRIBUTIONS

In this thesis it is argued that current conceptions of bioethics are inadequate in the light of today's global ecological and societal circumstances. An examination of the dominant contemporary model of bioethics as it is known and practiced in North America shows it to be entrenched and entrapped in a medical context and an ethos of liberal individualism. The model does not have the scope or flexibility to address critical issues of environmental destruction and its social causes and consequences, both of which impact the integrity of the biosphere and human health. Thus, bioethics fails to fulfill its purported role with respect to life, health, and the service of medicine and those receiving care within the medical system. The claim is made that a new paradigm for bioethics is needed, one modeled on ecological principles. It is argued moreover that theology can be a valuable contributor to the development of an ecological bioethics. Traditional contributions of theology to bioethics are not, however, adequate for the task of reformulating the discipline to meet today's urgencies and needs. What is needed is a retrieval of the rich Christian tradition of creation theology and the insights of contemporary eco-theology. A detailed account of these theological perspectives is provided together with an exploration of recent ecclesial statements and documents which articulate them in a vital manner and in terms of a call for Christian moral commitment. Theology is thus shown to have a potentially powerful and imaginative gift, to be joined with others, in the evolution of bioethics. Finally, this thesis presents a model for the expression and practical development of an ecological bioethics – a bioethics for life and healing – for today and for our future.

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DECLARATION

I declare that no part of this thesis has been submitted for a degree in this or any other university. All references to the work of other writers and researchers have been appropriately cited in the footnotes of this thesis. The copyright of this thesis rests with the author. No quotation from it should be published in any form, including electronic and the internet, without the author's prior written consent. All information derived from this thesis must be acknowledged appropriately.

INTRODUCTION

This thesis has its beginnings in my professional experience. As a clinical bioethicist, and teacher of bioethics, I came to the gradual realization that the dominant North American model of bioethics is inadequate in the light of present global environmental and social circumstances. My most compelling recognition of such circumstances was a result of my work in healthcare in developing countries. During that experience I saw first hand some of the devastating effects of environmental disregard and destruction. I became aware of their profound impacts on the health and wellbeing of humankind. I witnessed immense disparities in education, opportunity, health and wellbeing in the poorer nations in which I worked. This in turn raised my awareness of the existence of disparities of a similar, but currently less marked kind, in the industrialized countries in which I work. I began to experience a sense of professional and moral disquiet with the paradigm of bioethics within which I was practicing and teaching. This led me to begin to analyze and critique it. The motivation to research and write this thesis grew from that process.

My primary aim in this thesis is to develop an ecological paradigm for bioethics and to demonstrate the relevance of theology for such a renewal of the discipline. To achieve this goal I have found it important to research widely and to include, in my text, a broad range of topics. In this respect I have resisted a "narrowing down" of the content. My resistance has been deliberate since I believe that one of the major problems of our day is a passion for specialization. Specialization in turn leads to fragmentation. Fragmentation is, I contend, a particular and problematic characteristic of contemporary North American bioethics entrenching and entrapping it inappropriately in medicine and individualism.

In the evolution of bioethics, the original concept of the discipline as an integration of environmental, social and medical issues has been lost. Thus, environmental, social and medical ethics are now considered and practiced in isolation from one another. Bioethics has become essentially, medical bioethics. Given the reality of the interrelationship and interdependence of environmental, social and health care issues however, it seems to me, absolutely counterproductive to understand ethics in this manner. What is needed, I argue, is a reintegration of these fields of ethics, that is, a new model of bioethics enriched and informed by ecology.

Many academic and professional fields, together with public advice, can make essential contributions to a reformulation of bioethics along the lines I propose. Theology, I believe, has a potentially rich contribution to offer just as it did at the dawn of modern bioethics. Theology, however, has itself tended to become fragmented through specialization over the ages.

Moral theology, in particular, when applied to the early development of bioethics, contributed to the eventual narrowing of the field. For the emphases of moral theology, like those of the bioethics it informed, were placed on specific medical interventions and on individuals. Theology, therefore, did little to support or to promote the original concept of bioethics, proposed by scientist Van Rensellaer Potter in 1970. Potter, to whom the naming of "bioethics" is attributed, envisioned the discipline as a comprehensive field in which the relationship between environment, social conditions and health was made clear. The moral implications of that essential relationship, for Potter, formed the very essence of the discipline of

bioethics. Potter called upon religious groups and their theologians to support the task of defining bioethics in this manner. They were not forthcoming. Yet in all of the main religious groups there are rich resources for the advocacy of such a vision of bioethics. These rich resources, in Christianity in particular, have often been lost in the Tradition's ambiguity of spirit concerning the natural world. It is, nonetheless, to the treasure of the Christian resources of creation theology, and to its newer expressions in eco-theology, that I turn to consider its potentially helpful contribution to a reformulation of bioethics.

I set out to develop the concept of bioethics that was first proposed by Van Rensselaer Potter. I argue that such a paradigm of the discipline is urgently needed to morally address the global circumstances evident in our present world. Christian theology, I maintain, has a great opportunity to contribute richly to the process. Thus, the content of this thesis is wide in scope but each of its components has been researched and written about in depth. I submit that each and every component of this work is essentially theological, even those parts that may not appear to be directly so. For, with theologian Elizabeth Johnson I contend: "Theology is potentially the most comprehensive of fields. If there is only one God and if this God is the Creator of all that exists, then everything is encompassed in the scope of theology's interest."[1]

This thesis is divided into five chapters. In the first chapter a description of traditional medical ethics is provided. The key stages in the development and shaping of bioethics are identified and analyzed. The role of theology in the

[1] Elizabeth Johnson, "The Cosmos: An Astonishing Image of God," *Origins* 26, no. 13 (1996) 206-212, at 207.

evolution of bioethics is discussed and critically evaluated. In the first chapter the argument is made that the dominant, contemporary North American model of bioethics is inadequate in the light of current global circumstances.

In Chapter 2, the global circumstances that, I believe, call for the reformulation of bioethics are set out in some detail. Some further critique of the current standard model of bioethics is included and the beginnings of a proposal for the development of an ecological model of bioethics are presented. At the conclusion of the second chapter the case is made for the engagement of theology in the development of such a model of bioethics. What is urgently needed for this task, I propose, is a theology that emphasizes an ecological motif.

In chapter 3, a comprehensive description of such theology through the ages is provided. I maintain that a theology of this kind has a potentially important contribution to make to a new and more relevant vision of bioethics. In this argument I am not alone for I believe that numerous recent statements and documents issued by the various churches support the call for a new and integrated vision of ethics generally and bioethics in particular.

In Chapter 4, I therefore provide a thorough account of such ecclesial initiatives; initiatives which I believe rearticulate the ecologically rich tradition of Christian theology for a new moral foundation. I highlight, nonetheless, some of the limitations I believe are evident in the Church documents, the major of which is a continuing anthropocentrism. Anthropocentric perspectives, I maintain, are at the root of today's global problems. Thus, I include a description of the work of priest and cultural historian Thomas Berry, who stands at the theological margins of the

Church calling for a rejection of Christian anthropocentric perspectives. In so doing, Berry provides a new moral framework, one that I claim, holds great promise for a new bioethics. Berry's voice is, however, quite strident and may not be easily heard by many in the Christian community. I therefore also include in Chapter 4, a brief comparison between Berry and Protestant theologian, Jürgen Moltmann, whom I suggest, also provides a theological model for the possible evolution of a more relevant bioethics.

In chapter 5, I develop new details of an ecological bioethics. These form a development of the original model of bioethics first provided by Van Rensellaer Potter. I reflect on how such developments might begin to impact the theory of bioethics, the clinical practice of bioethics, and healthcare policy. Some discussion of the ways in which the theology I have described might support such a bioethics is included. For, in supporting the formulation of a new bioethics, theology responds to the call to health and healing so crucial today and for the future.

Throughout the thesis, where I see them to be relevant and illustrative, I have incorporated cases and examples derived from my professional experience. All my work in bioethics has been conducted in North America and thus, I write about and critique the discipline from that context and perspective. It should also be noted that throughout this thesis, due to the fact that the majority of my references are North American in origin, I have used American spelling so as to avoid inconsistencies in my overall presentation.

CHAPTER ONE

EXPLORING BIOETHICS

The boundaries of bioethics cannot readily be constrained. The expanding boundaries force us to take up larger and deeper problems, much as a small stone tossed into the water creates larger and larger ripples. **Daniel Callahan: "Bioethics"**

The term bioethics as it is understood today is almost exclusively associated with the medico-scientific domain. We think immediately of ethical concerns that arise in the development of Western biomedical sciences.[1] Issues that are usually regarded as constitutive of bioethics include human experimentation, informed consent to medical treatment, control of life through withholding or withdrawal of life-sustaining interventions, reproductive technologies, abortion, genetic engineering, screening and therapy.

Bioethics is also usually taken to provide guidance to health care professionals in their relationships with patients through its translation into codes of practice, policy and institutional guidelines. Occasionally, ethical questions concerning health care prioritization, health promotion, population screening and public participation are included in our understanding of bioethics.[2] Nonetheless, such questions do not have a high profile in bioethics discussions and are rarely well integrated into the mainstream debates. Bioethics has sometimes addressed the correlation between health and gender, age, ethnicity, culture or economic status. Generally, however, such concerns are seen to be peripheral to the focus of the discipline. Rather, they are viewed as coming within the purview of separate fields of social or political ethics. Questions

[1] Patricia. Marshall, "Anthropology and Bioethics," *Medical Anthropology Quarterly* 6, no. 1 (1992): 49-73, at 50.
[2] See for example: Peter Bradley and Amanda Burls, eds., *Ethics in Public and Community Health* (London: Routledge, 2000).

concerning environment and health are similarly relegated to the specialized domain of environmental ethics. They infrequently reach the bioethics agenda.

"In other words," as theologian Andrew Dutney, states, "the common understanding of bioethics places medical science at the center, orients the care of individuals around that center, cautiously admits limited consideration of human communities, and ignores entirely the natural environment."[3] Dutney's view of bioethics is one with which I concur. In my experience as a hospital ethicist and bioethics educator I have seen firsthand that the concerns of medical practice and scientific research dominate the agenda to the exclusion of wider perspectives. My overall aim in this thesis is to show that such a concept of bioethics is insufficient in content and practice. What is required is a more comprehensive view of bioethics. Specifically, I will propose an ecological model of bioethics. I will suggest furthermore that theology may make an invaluable contribution to the evolution of such a model of bioethics. For theology to contribute adequately, however, a re-visioning of a basic orientation of theology and the ways in which it engages with bioethics will be necessary. To frame my overall arguments and proposals I will begin by challenging the currently received view of bioethics. For I agree with Dutney that this view of bioethics is "historically inaccurate, conceptually flawed and has been largely overtaken by events."[4]

In this first chapter I will therefore:

(1) provide an overview of traditional medical ethics;

(2) examine key stages in the evolution and shaping of bioethics; and

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[3] Andrew Dutney, "Bioethics, Ecology, and Theology," in *Earth Revealing - Earth Healing, Ecology and Christian Theology*, ed. Denis Edwards (Collegeville, Minnesota: The Liturgical Press, 2001), 213-31, at 13.
[4] Ibid., 214.

(3) assess critically the traditional role theology has played in the evolution of bioethics.

Traditional Medical Ethics

Prior to the mid twentieth century, doctors seldom expressed any deep moral concern about the practice of their profession.[5] Medical ethics was, until that time, the exclusive domain of doctors, defined by the self-image of the medical profession.[6] It was a medical ethics, in the West at least, that was steeped in the Hippocratic and Judeo-Christian traditions, enunciated in oaths, rules of Church and State, and professional codes that enjoined physicians "to benefit the sick and to do no harm."[7] To the sick, this usually meant an ethic of benign medical presence at a time when doctors were unable to achieve much at all in the way of effective treatments.[8] Above all, living human beings were to be reverenced and thus such actions as abortion and euthanasia were prohibited. Breach of patient confidentiality and the financial or sexual exploitation of a patient was not tolerated.[9] Doctors (and nurses too) were expected to show a constant care for the sick even if to do so entailed significant self-sacrifice.[10] This model of medical ethics, together with the social esteem afforded doctors, engendered an ethos of trust in the profession and its members. Decisions of a medical nature, and sometimes those more broadly concerned with the life and wellbeing of a patient, were generally left in the hands of the doctor. Medical paternalism was unquestionably, a good. The public perception, as Nuala Kenny puts it, was that "doctors were good

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[5] Albert R. Jonsen, *The Birth of Bioethics* (New York, Oxford: Oxford University Press, 1998), 9-11.
[6] Nuala Kenny, "The Ethic of Care and the Patient-Physician Relationship," *Annals RCPSC* 27, no. 6 (1994): 356-58, at 56.
[7] Jonsen, *The Birth of Bioethics*, 5-6.
[8] Jacalyn Duffin, *History of Medicine: A Scandalously Short Introduction* (Toronto: University of Toronto Press, 1999), 116.
[9] Edmund D. Pellegrino, "The Metamorphosis of Medical Ethics: A 30-Year Retrospective," *JAMA* 269, no. 9 (1993): 1158-62, at 59.
[10] Jonsen, *The Birth of Bioethics*, 6.

persons; good persons do good things; good patients do what their doctor says."[11] This model of medical ethics remained the dominant paradigm well into the first half of the twentieth century.[12] The situation was, however, to undergo a radical transformation following World War II.

Mid-twentieth-century Developments in Medical Science

Significant developments in military medicine during and immediately following World War II provided a catalyst for a public expansion of therapeutics. By 1946, the effectiveness of the antibiotic streptomycin in the treatment of tuberculosis had closed the sanitoria. The synthesis of penicillin provided treatment for a wide range of infections that had previously proved fatal. The introduction of the drug Methotrexate for the treatment of acute leukemia, and the development and wide use of the polio vaccine constituted revolutionary steps forward. In the 1950s, the external cardiac pacemaker was developed and an implantable form became available by 1960. The first open-heart surgery was also performed in the 1950s.[13] Medical science, aided by technological development, was making great strides toward the wellbeing of humanity, consistent with the traditional altruistic role of the profession. Ominous storm clouds, however, had been gathering on the horizon.

Lessons of the Holocaust

On December 9, 1946 in Nuremberg, Germany, twenty-three Nazi physicians charged with "murders, torture and other atrocities in the name of medical science" stood

[11] Kenny, "The Ethic of Care and the Patient-Physician Relationship," 357.
[12] Edward Shorter, *Bedside Manners: The Troubled History of Doctors and Patients* (New York: Simon and Schuster, 1985), 28-29.
[13] Jonsen, *The Birth of Bioethics*, 6.

on trial before a military tribunal.[14] In order to provide an accurate account of the evolution of medical ethics it is important to include here a few key points about this event. For it has been argued, and I believe correctly, that the outcome of the Nuremberg Trial marked the beginning of a shift in the moral understanding of medicine that would help lay the groundwork for the eventual birth of bioethics in the 1960s.[15]

The revelations of the Doctors' Trial at Nuremberg shook the world and challenged the trust previously afforded the medical profession. The trial revealed that over a ten-year period, with the general support and involvement of the medical profession, some 275,000 people had been exterminated in specially established euthanasia centers.[16] Doctors had become involved in cruel and often fatal human experimentation for the fulfillment of the Nazi ideology, the furtherance of military medicine and for ambitious scientific advancement. The process culminated in the doctors' direct involvement in genocide, particularly in the murder of Jews toward the so-called "Final Solution" that would ensure the continuing 'health' of the German nation.[17]

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[14] Ibid., 134.

[15] "Biomedical Ethics and the Shadow of Nazism. A Conference on the Proper Use of the Nazi Analogy in Ethical Debate.," *Hastings Center Report Special Supplement* 6, no. 4 (1976). See also: Erich H. Loewy, "Bioethics: Past, Present, and an Open Future," *Cambridge Quarterly of Healthcare Ethics* 11, no. 4 (2002): 388-96, at 90-91.

[16] *The T-4 Euthanasia Program* (The American-Israeli Cooperative Enterprise, 2003 [cited September 15 2003]); available from www.us-israel.org/jsource/Holocaust/t4.

[17] Leo Alexander, "Medical Science under Dictatorship," *The New England Journal of Medicine* 241, no. 2 (1949): 39-47. Prior to the setting up of the extensive euthanasia program, Alexander points to a gradual decline in German medicine starting with widespread sterilization of mentally disabled persons and others considered by the authorities to be unfit for parenthood. Out of this ethos, by way of a 'slippery slope', Alexander claims, the euthanasia of those with chronic illnesses began to take place. This included people with mental illnesses, those with neurological disorders such as Parkinson's disease, multiple sclerosis, and brain tumors, and those suffering the effects of the degenerative problems of aging. From this point on others began to be included for social and racial reasons. What should be noted here, however, is the fact that sterilization of mentally disabled women of reproductive age was also widely practiced in numerous other Western countries. Influenced by the work of people like Francis Galton and Aldous Huxley, the eugenics movement gained momentum and political and medical support at the turn of the twentieth century especially in Britain, the United States, Canada and Scandinavia. The goal of the eugenics movement was to remove deleterious genes from the gene pool, and to perpetuate beneficial genes for the survival and wellbeing of the human race. To this end sterilization laws

To an outside world, the engagement of the medical profession in such atrocities appeared, and continues to appear, incomprehensible, especially in the light of traditional medical ethics. Albert Jonsen notes, "Never before or since has medicine's major moral mandate, 'do no harm', been so flagrantly, unambiguously, and indefensibly violated than by Nazi crime."[18]

Unethical research became the main focus of the Trial deliberations. While research constituted only one piece of the larger pattern of medical abuse, it dramatically highlighted a central disregard for the individual that permeated the ethos of Nazi idealism. The prime directive was the survival and flourishing of the German race. The individuals involved in Nazi medical research were simply a means to further that end. The studies were conducted without consent and with no consideration for the research subjects. Experiments were deliberately harmful and included subjecting concentration camp internees to extreme hypothermia, high altitude decompression, mutilation, massive bleedings, exposure to typhus and other severe infections, and to toxic substances and experimental drugs. Many subjects died and others were seriously injured or disabled in the study processes.[19]

The development of the Nuremberg Code was the Tribunal's response to this blatant abuse of medicine. Through the Code the Tribunal set out to ensure that in future the wellbeing of the individual would be pre-eminent in all research with human

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were enacted in some of these countries beginning in 1907, continuing until the late 1970's. See: Robert Song, *Human Genetics: Fabricating the Future* (London: Darton, Longman and Todd Ltd., 2002), 42-47. See also: Gilbert Sharpe, *The Law and Medicine in Canada* (Toronto: Butterworths, 1987), 57-68. Michael R. Marrus, *The Holocaust in History* (Toronto: Key Porter Books, 2000), 51-54.

[18] Jonsen, *The Birth of Bioethics*, 134.

[19] Harold Y. Vanderpool, "Introduction and Overview: Ethics, Historical Case Studies, and the Research Enterprise," in *The Ethics of Research Involving Human Subjects: Facing the 21st Century*, ed. Harold Y. Vanderpool (Frederick, Maryland: University Publishing Group, Inc., 1996).

subjects.[20] The Code echoed the reverence for persons that was inherent in traditional medical ethics, but it went further. In the Code, respect for persons was now articulated in legal terms, was internationally binding and was expressed primarily as a principle of self-determination. It is these two factors - a legal conceptualization of medical morality and the primacy of respect for the individual expressed in a principle of self-determination - that I believe most influenced the bioethics to come. For it was to be a bioethics commonly construed within a legal framework in which the individual's right to self-determination (autonomy) became paramount. This came to apply not only to research but, by extension, to all health care interventions. Initially, the Nuremberg resolutions did much to allay public fears about the future practice of medicine. Trust in the altruism of the medical profession outside this perceived national aberration was thus intact, and in the light of significant advances in medical science, optimism prevailed.

Continuing Optimism and the Gifts of Science in the 1960s

The 1960s continued to see dramatic developments in the progress and promise of medical science. "The general public was presented with a series of medical miracles."[21] In the 1960's haemodialysis became possible. Renal transplantation was developed. The decade also brought medically safe abortions, the contraceptive pill, prenatal diagnosis, expanded use of artificial life support and the widespread

[20] The Nuremberg Code applies to all international human subjects' research. Its principles include: (1) the requirement for the voluntary, uncoerced consent of any subject of research; (2) that all research should be designed so as to yield results for the good of society; (3) a requirement that prior experimentation be conducted using animals [a subject of increasing concern to some ethicists and many others today]; (4) that no experiment should be conducted where there is an *a priori* reason to believe that death or disabling injury will occur; (5) that only adequately qualified investigators conduct studies; and (6) that a subject or investigator has a right to terminate experiments deemed in any way harmful, and to do so at any time during the study process. Source: *Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10: Nuremberg, October 1946-April 1949* (Washington: U.S. Government Printing Office, n.d., vol. 2), 181-82.

[21] Dutney, "Bioethics, Ecology, and Theology," 214.

development of intensive care units. Medical specialization followed rapidly. There was also a radical shift in social patterns resulting in the institutionalization of health care. The hospital became the setting even for death, now a highly medicalized process.[22] In 1967 the first transplantation of a human heart took place.[23] Early developments in human genetics increased powers over the beginnings of life.[24] Initially, these medical advances were viewed as unequivocally good but gradually some moral discomfort began to be felt at a professional level and at a public level. New questions, or at least novel formulations of old questions, were generated in the wake of the progress.[25] Traditional medical ethics no longer seemed to provide an adequate framework for addressing the issues.

A Strained Medical Ethics

For some commentators the development of renal dialysis is seen as the pivotal event that precipitated the transition from traditional medical ethics to bioethics.[26] This event more than any others was to open wide the 'Pandora's box' of the ethics of resource allocation.[27] The central question became, "How will society prioritize access to scarce new treatments?" Not only did the advent of organ transplantation magnify such resource questions, it also raised moral concerns about the nature of bodily integrity.

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[22] Daniel Callahan, "Bioethics," in *Encyclopedia of Bioethics*, ed. Warren T. Reich (New York: Simon & Schuster, 1995), 248. See also: Hubert Doucet, *Death in a Technological Society: An Ethical Reflection on Dying*, trans. Kenneth Russell (Ottawa: Novalis, St. Paul University, 1992), 18-23.

[23] Jonsen, *The Birth of Bioethics*, 11.

[24] Allen Verhey, ed., *Religion and Medical Ethics: Looking Back, Looking Forward* (Grand Rapids, Michigan: William B. Eerdmans, 1996), 11.

[25] In his exceptional critique of standard bioethics, Gerald McKenny, is clear that while the circumstances in which questions arose may have been novel, the fundamental questions to which they gave rise were not. He cites the need at the time to define death in the light of the developing capacity to sustain respiratory functions by mechanical ventilation. The context he points out may have been new but he is clear that questions about how to define death had a long history in medicine and religion. See: Gerald P. McKenny, *To Relieve the Human Condition: Bioethics, Technology, and the Body* (Albany: State University of New York, 1997), 11.

[26] See for example: Jonsen, *The Birth of Bioethics*, ix-x.

[27] Ibid., 211 14.

What, for example, would count as morally acceptable criteria for retrieving organs for transplantation?

Heart transplantation, in particular, rang alarm bells. It challenged the very concept of human life. Since the definition of death had always been determined by cessation of cardio-pulmonary function, the removal of a beating heart from one person, for transplantation to another, raised basic questions that seemed "far beyond the scope of medicine to decide."[28] The development and increasing use of artificial life support also raised a host of questions. How long should we maintain a person on life support? More fundamentally, what is the relationship between biological life sustained by technology and the living person?[29] What constitutes personhood anyway? Similar metaphysical questions pervaded beginning-of-life concerns around reproductive choices, abortion and the fledgling genetics. What is the moral status of the embryo? When does personhood begin? Possibilities for prenatal screening exacerbated the already politically contentious abortion debates. The specter of a potentially unbridled program of eugenics was raised.[30] The question, "who shall live and who shall die?" had become commonplace in the everyday practice of doctors.[31]

Most worrisome for some was the overarching use of technology in medicine. "Many considered the use of technological methods in health care to be the very

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[28]Nuala Kenny, "The Longstanding Tradition of Ethics in Medicine," in *The 'Good' Pediatrician: An Ethics Curriculum*, ed. Abbyann Lynch (Toronto: The Pediatric Ethics Network, 1996), 18-19. In 1968 the Ad Hoc Committee of Harvard Medical School produced its formulation of a new, brain-oriented definition of death. See: Harvard Medical School, "A Definition of Irreversible Coma: Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death," *JAMA* 205, no. 6 (1968): 337-40.

[29] Kenny, "The Longstanding Tradition of Ethics in Medicine," 19.

[30] Verhey, ed., *Religion and Medical Ethics: Looking Back, Looking Forward*, 1.

[31] Kenneth Vaux, ed., *Who Shall Live? Medicine, Technology, and Ethics* (Philadelphia: Fortress Press, 1970).

antithesis of a humanized form of care."[32] The traditional healer had been replaced by the technician.[33] The machine had replaced the person. The general practitioner who had known the patient and his or her life context well had become the specialist concerned with specific body parts, functions and related medical interventions. Critically, as Gerald McKenny points out, humanity became obsessed with bodily perfection. Striving for such perfection came to be seen as a moral imperative originating from the rise in technological capacity and from the enduring influence of the writings of Francis Bacon and Rene Déscartes. Modern medicine "with its immense capacities to intervene into and reorder the body held out the promise of fulfilling this imperative."[34] The very goals of medicine were set within this context.

With the radical changes in clinical medicine that were taking place came a concomitant explosion in biomedical research.[35] Believing the Nazi abuses in experimentation to be an isolated incident, American researchers had consistently resisted external oversight of their work.[36] Jay Katz points out that while most researchers during the 1960s conducted their studies with an awareness of potential risks which they endeavored to minimize, they were largely oblivious to their responsibilities with respect to disclosure of information to their research subjects and the obtaining of informed consent. The ethics of research was rarely discussed, if at all,

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[32] David C Thomasma, "Early Bioethics," *Cambridge Quarterly of Healthcare Ethics* 11, no. 4 (2002): 335-43, at 35.
[33] William May, *The Physician's Covenant: Images of the Healer in Medical Ethics* (Philadelphia: The Westminster Press, 1983), 83-105.
[34] McKenny, *To Relieve the Human Condition: Bioethics, Technology, and the Body*, 2.
[35] Rothman notes that in 1965 in the United States, federal funding for research through the National Institutes of Health amounted to $436 million allocated to between 1500-2000 projects. See: David J. Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making* (New York: Basic Books, 1991), 53-59.
[36] Ibid., 62-63.

in the medical curriculum.[37] Thus, the publication in 1966 of *Ethics and Research* by Henry Knowles Beecher, Harvard Professor of Medicine, was profoundly disturbing.[38]

In his article, Beecher provided 22 examples of unethical studies that had been carried out in the United States between 1948 and 1965, studies published in leading professional journals by internationally prominent investigators. In most of the studies referred to by Beecher, disclosure of information to subjects was inadequate. Research had been undertaken without sufficient explanation to subjects about potential risks. In some cases, subjects had not even been aware that they were enrolled in research, although in many cases serious harm followed as a result of the experimentation.[39] The now infamous examples included the subcutaneous injection of live cancer cells into unknowing subjects at the Jewish Chronic Disease Hospital in Brooklyn, New York, and the deliberate infecting of mentally disabled children with a mild strain of hepatitis A at the Willowbrook State School on Staten Island.[40]

A dilemma for some was the fact that the unethical studies had yielded highly beneficial medical results for society, such as the discovery of a wider range of antibiotics, a cure for tuberculosis, new drugs for the treatment of some cardiac disorders and an increased understanding of the pathology of hepatitis.[41] As Beecher highlighted, however, the medical advances that had been achieved had relied on studies that had been conducted without regard for the basic principles of research

[37] Jay Katz, ""Ethics and Clinical Research" Revisited: A Tribute to Henry K. Beecher," *Hastings Center Report* 23, no. 5 (1993): 31-39.
[38] Henry K. Beecher, "Ethics and Clinical Research," *New England Journal of Medicine* 274 (1966): 1354-60.
[39] Ibid.: 1354.
[40] Vanderpool, "Introduction and Overview: Ethics, Historical Case Studies, and the Research Enterprise," 9. See also: Ruth R. Faden and Tom L. Beauchamp, *A History and Theory of Informed Consent* (New York: Oxford University Press, 1986), 161-64.
[41] Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making*, 79.

ethics expressed in the Nuremberg Code and in the subsequent *Declaration of Helsinki* set out by the World Medical Association.[42] The research scandal revealed in Beecher's article undercut the moral complacency of those who had considered the lessons of Nuremberg to have no relevance for them. It once again placed in the public arena concerns about the moral integrity of the medical profession especially in the light of an increasing acceptance of scientific pre-eminence. Beecher's article also posed a significant challenge to the utilitarian stance that was so often used to justify research.[43] Should medical ethics now be left in the hands of the profession? Traditional medical ethics and the profession's 'ownership' of it were now under considerable strain.

Other issues too were beginning to enter the public consciousness. The publication in 1962 of Rachel Carson's pivotal book, *Silent Spring*, for example, increased awareness of environmental risks created by the unrestrained human ambition for economic progress and the domination of nature.[44] At the same time, cultural changes were taking place that greatly challenged understandings of ethics. The decade saw the dawning of the civil rights movement and the expansion of feminism as a social dynamic. It was also the era of protest in the United States against the Vietnam War, and a time in which the authority of traditional institutions was being questioned. An immense social surge in individualism took hold. In moral philosophy, a revival in normative ethics was taking place.[45] Together, such developments gave rise to an unprecedented challenge to traditional medical ethics. Robert Veatch remarks:

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[42] Vanderpool, "Introduction and Overview: Ethics, Historical Case Studies, and the Research Enterprise," 9. The Declaration of Helsinki which provides recommendations for the conduct of research with human subjects was adopted in 1962 and revised by the World Medical Assembly at Helsinki, Finland in 1964, with subsequent revisions in Tokyo, (1975) Venice, (1983) Hong Kong, (1989) and Somerset West, South Africa (1996).
[43] Ibid., 8.
[44] Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962).
[45] Robert Baker, "From Metaethicist to Bioethicist," *Cambridge Quarterly of Healthcare Ethics* 11, no. 4 (2002): 369-79, at 70.

> In virtually every aspect of medicine, the old ethics was suddenly terribly inappropriate. A new, more egalitarian, more social, more rights-oriented, and more anti-paternalistic ethic had to be invented by a broader public to replace one that was now useless.[46]

The slumbering conscience of the medical profession was awakening. The old medical ethics would no longer suffice. Conditions were fertile for the birth of bioethics, but the transition from medical ethics to bioethics was a gradual one.[47]

Conferences and the Fledgling Bioethics

Prior to the 1960s, concerns about the amorphous risks of scientific progress had begun to be voiced in private conversations between scientists and other professionals.[48] Episcopalian theologian Joseph Fletcher, for example, in his prescient book *Morals and Medicine* (1954), had highlighted some specific moral problems associated with the scientific developments taking place. In particular, he denounced the separation of human values from scientific facts and the perceived notion of a "value-free" medicine, a notion that he believed to be characteristic of twentieth century thinking.[49] As the 1960s arrived, scientists concerned by what they saw to be urgent and troubling questions regarding research and technology, brought these issues to a larger audience by organizing several conferences in the United States and in Britain.[50]

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[46] Robert M. Veatch, "The Birth of Bioethics: Autobiographical Reflections of a Patient Person," *Cambridge Quarterly of Healthcare Ethics* 11, no. 4 (2002): 344-52, at 46.
[47] Jonsen, *The Birth of Bioethics*, 3.
[48] Ibid., 13.
[49] Joseph Fletcher, *Morals and Medicine. The Moral Problems Of: The Patient's Right to Know the Truth, Contraception, Artificial Insemination, Sterilization, and Euthanasia* (Princeton, N.J.: Princeton University Press, 1954).
[50] The major conferences include: Dartmouth College, New Hampshire in 1960; the CIBA Foundation, London, England, in 1962; the Adolphus College Nobel Conferences, Minnesota, a series held throughout the decade. In 1966 Reed College in Portland, Oregon held a conference entitled, *The Sanctity of Life*, and in 1967, theologian Kenneth Vaux, of the Institute of Religion at the Texas Medical Center, set up a forum to discuss the issues raised by the first heart transplant carried out by Dr. Christiaan Barnard in South Africa. For a more detailed overview of the conferences of the 1960s, see: Jonsen, *The Birth of Bioethics*, 13-19.

Conference participants were world leaders in their respective fields. At the first of the conferences, held at Dartmouth College, Hanover, New Hampshire, September 8-10, 1960, contributors included René Dubos, Professor of Microbiology at the Rockefeller Institute (Chair), Sir George Pickering, Regius Professor of Medicine at Oxford University, Brock Chisholm, then the newly-appointed Director General of the World Health Organization, Wilder Penfield, the prominent Canadian neurosurgeon, Herman Muller, Nobel Laureate in physiology, and George Kistiakowsky, Assistant to President Eisenhower for Science and Technology. The humanities were represented by such well-known names as C.P. Snow and Aldous Huxley.[51]

Such diverse topics as the effects of ionizing radiation, water and air pollution and chemical food additives were brought to the debates. Technological advances in medicine opened the door to negative as well as positive outcomes. Many advances heralded a lower mortality rate and prolongation of life. What had once been incurable was now treatable or curable and as a result some geneticists began to worry about and to discuss potential pollution of the gene pool. Other professionals debated the escalating problems associated with the provision of treatment and care for a growing and aging population.[52]

At *Man and his Future*, a conference sponsored by the CIBA Foundation, held in London, England, November 27-30, 1962, Sir Julian Huxley presented an opening lecture entitled, "The Future of Man – Evolutionary Aspects". In his presentation, Huxley referred to "man" as "the trustee ... of advance in the cosmic process of evolution."[53] In

[51] Ibid., 13.
[52] Ibid., 13-14.
[53] Sir Julian Huxley, "The Future of Man - Evolutionary Aspects," in *Man and His Future*, ed. Gordon E.W. Wolstenholme (Boston: Little, Brown, and Co., 1963), 20-22.

the face of problems of overpopulation, due in part to technological advances in medicine, Huxley spoke of the need to seek ways to overcome obstacles to human fulfillment. His solution was radical eugenic improvement.

It was precisely such perspectives on eugenics that were to draw Protestant theologian Paul Ramsey into the debates. While acknowledging the validity of some of the concerns of the scientists with respect to "the inexorable degeneration of the genetic pool under conditions of modern life", Ramsey made a plea for reflection on values underpinning the scientific endeavor.[54] He opposed the view of a "science-based culture" cradled in "atomistic individualism". Ramsey presented instead a theological perspective rooted in the biblical religions.[55] He repudiated the argument for a human imperative to ensure the improvement of future generations by means of genetic engineering.[56] Rather, he contended, other values ought to underpin efforts to prevent harm to future generations, including the value of maintaining the unitive and procreative purposes of human sex within marriage. Ramsey grounded his arguments in the notion of covenant, a central focus in many of his influential works.[57]

In making his arguments, Ramsey, like other theologians involved in the medical ethics of the 1960s, brought to the debates expertise in both moral theology and normative ethics, and thus, an analytic rigor that had been missing from the earlier

[54] Paul Ramsey, *Fabricated Man: The Ethics of Genetic Control* (New Haven: Yale University Press, 1970), 1.
[55] Ibid., 39.
[56] Jonsen, *The Birth of Bioethics*, 175.
[57] In particular, Ramsey's, *Basic Christian Ethics and The Patient as Person* place the concept of covenant, (faithfulness) and (*hesed),* God's steadfast love for humankind, at the center of Christian ethics, See : Paul Ramsey, *Basic Christian Ethics* (New York: Charles Scribner's Sons, 1950). Paul Ramsey, *The Patient as Person: Explorations in Medical Ethics* (New Haven: Yale University Press, 1970).

discussions.[58] The impact of Ramsey's lecture in helping to transform the old medical ethics into the new discipline of bioethics cannot be underestimated. As Albert Jonsen says, "Ramsey's Nobel Conference lecture may be counted as one, and perhaps the first, genuine example of bioethics. It goes beyond 'airing the issue' to analyzing it in light of distinctly expressed principles and values."[59]

Ramsey was not alone in bringing his theological gifts to the debates. Other theologians also made important contributions. In response to the first heart transplant carried out by Dr. Christiaan Barnard, in 1967, Kenneth Vaux organized a forum to discuss ethical issues arising from this radical development. To this end, Vaux brought together a remarkable panel of theologians that included, Paul Ramsey, Joseph Fletcher, the Jesuit Lawyer Robert Drinan, and his own teacher, German Protestant, Helmut Thielicke, who spoke prophetically of the "ambiguity of progress" which he saw as the inseparability of the goods and evils of medical and other advancement.[60] It was a mark of the bioethics to come. Indeed, many have regarded the conference organized by Kenneth Vaux as "the birthplace of the discipline of bioethics".[61] Other theologians, such as Roman Catholics Richard McCormick, Charles Curran, and Bernard Häring, Protestant James Gustafson and Jewish scholar, Rabbi Immanuel Jakobovits, played a crucial role in the birth of the new discipline. Courtney Campbell remarks:

> Theologians found themselves in the unique position of being able to give bioethics an initial impetus and substantive direction, because they brought to bear on its subject matter the substantial resources of moral reflection, historic traditions, and practices of religious communities.[62]

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[58] Baker, "From Metaethicist to Bioethicist," 369.
[59] Jonsen, *The Birth of Bioethics*, 17.
[60] Helmut Thielicke, "Ethics in Modern Medicine," in *Who Shall Live? Medicine, Technology, and Ethics*, ed. Kenneth Vaux (Philadelphia: Fortress Press, 1970), 155.
[61] Scott B. Rae and Paul M. Cox, *Bioethics: A Christian Approach in a Pluralistic Age* (Grand Rapids, MI: William B. Eerdmans, 1999), 1.
[62] Courtney S. Campbell, "The Moral Meaning of Religion for Bioethics," *Bulletin of PAHO* 24, no. 4 (1990): 386-93, at 86.

Although the contribution of theology to bioethics was soon marginalized, a point to which I will return later in this chapter, for the time being the theologians worked alongside scientists, doctors, philosophers, lawyers, novelists and anthropologists in an "unprecedented discourse around morals, science and medicine".[63]

The great conferences of the 1960s provided the foundation for bioethics. They began to give some shape to an ethics distinct from traditional medical ethics, while preserving some of its fundamental tenets. The emerging questions transcended the scope of medical practice and yet were inextricably bound to it and they were informed by a range of interdisciplinary scholarship and debate. The conferences, however, had their limits. Thus, theologian James Gustafson expressed hope that there could be movement "beyond the conference procedure to a more disciplined, careful, long range way of working in which areas of disagreement can not only be defined, but in part at least overcome." What is now needed, he claimed, "is interdisciplinary work within universities or centers that have personnel and resources for the arduous tasks of intensive and long-term work."[64] In one such academic center, the new bioethics was to find its dominant definition.

Bioethics

The first sustained use of the term 'bioethics' was in 1971 with the foundation of the Kennedy Institute of Human Reproduction and Bioethics (later to become known as the Kennedy Institute of Ethics) at Georgetown University in Washington, D.C. The Institute was the result of a quite remarkable alliance between Eunice Kennedy-Shriver, sister of President John F. Kennedy, her husband, Sargent Shriver, Robert E. Cooke,

[63] Jonsen, *The Birth of Bioethics*, 19.
[64] James M. Gustafson, "Review of Life or Death: Ethics and Options," *Commonweal* 89, no. 4 (1968): 27-30, at 27.

Chief of Pediatrics at Johns Hopkins University, and the visionary Dr. André Hellegers, Professor of Obstetrics/Gynecology and Physiology/Biophysics at Georgetown University. Interestingly, all were initially drawn to the enterprise because of a shared experience of having family members with mental disabilities.[65]

André Hellegers provided the Kennedy Institute with its initial direction. LeRoy Walters, a Mennonite theologian, became its first Director. At the same time, Warren Thomas Reich, who had recently resigned from the Faculty of Theology at Catholic University, was appointed Professor of Bioethics at the Georgetown University School of Medicine. Reich and Walters made major contributions to the field of bioethics particularly in research, teaching and writing during their time at the Kennedy Institute. LeRoy Walters developed an extensive bibliography of bioethics that was to provide the basis for the development of the vast library of bioethics at Georgetown University. Warren Reich undertook a major editing project that began in 1971 as the *Encyclopedia of Medical Ethics* and which by the time of its publication in 1978 had become the *Encyclopedia of Bioethics*.[66] This publication made a phenomenal contribution to the new field, and as Andrew Dutney points out, with the transition in its title, "bioethics was thus confirmed as the successor to medical ethics".[67] The early initiatives of the Kennedy Institute at Georgetown defined the new discipline of bioethics, characterized in particular by:

(1) a focus on concrete medical dilemmas (the Institute's original list of issues to be considered included obligations toward the "mongoloid child" in the context of life-threatening disease, research toward the

[65] Warren T. Reich, "The "Wider View": Andre Helleger's Passionate, Integrating Intellect and the Creation of Bioethics," *Kennedy Institute of Ethics Journal* 9, no. 1 (1999): 25-51.
[66] Warren T. Reich, ed., *The Encyclopedia of Bioethics*, 4 vols. (New York: The Free Press, 1978).
[67] Dutney, "Bioethics, Ecology, and Theology," 219.

development of "test-tube" babies and the allocation of scarce resources for kidney dialysis) discussed primarily on a case-by-case basis;[68]

(2) a fundamental emphasis on the rights and duties of patients and health professionals, and the rights and duties of researchers and research subjects and thus a strong focus on the individual;[69] and

(3) a principles-based approach to ethical decision-making.[70]

In light of the historical context already outlined in this chapter such developments in the new discipline are understandable. The rapid advances taking place in science and medicine raised numerous, urgent moral questions of unprecedented complexity. Responding to the impact these advances had on the lives of so many individuals became definitive of the evolving bioethics process.[71] A revival of casuistry helped affirm the case-based approach being taken in the new bioethics.[72] Medical bioethics, environmental bioethics and social ethics that had been so well integrated during the conferences were now beginning to fragment into specialties, their connection to one another all but severed. Thus the bioethics at Georgetown became essentially "medical" bioethics.[73]

A focus on the individual and his or her rights and duties, so characteristic of the Georgetown model, is also readily explicable. It began with respect for the person and

[68] Warren T. Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings," *Kennedy Institute of Ethics Journal* 5, no. 1 (1995): 19-34, at 20.
[69] Ibid.
[70] Tom L. Beauchamp and James F. Childress, *Principles of Biomedical Ethics*, 1 ed. (New York: Oxford University Press, 1979).
[71] Edmund Pincoffs, "Quandary Ethics," *Mind* 80 (1971): 552-71.
[72] Stephen Toulmin, "How Medicine Saved the Life of Ethics," *Perspectives in Biology and Medicine* 25, no. 4 (1982): 736-50, at 49-50.
[73] Dutney, "Bioethics, Ecology, and Theology," 226.

an emphasis on the doctor-patient relationship central to traditional medical practice and was amplified, as we have seen, in response to abuses in medicine and research. Moreover, the evolution of bioethics coincided with the evolution of Western human rights, civil rights and women's rights. As Robert Veatch asks, "could patients' rights be far behind?"[74] The previously undisputed authority of the doctor was being challenged. Veatch remarks:

> The arrogance of the medical profession claiming that he or she (mostly 'he') had the authority to decide, even against a patient's wishes, what was best for the patient was morally indefensible. Physicians were deciding not only that continued tortuous life support was in a dying person's best interest but that the physician's 'order' justified continued infliction of that torture. The ethic seemed so wrong, so contrary to any moral decency that it was only natural to challenge it in the name of patients' rights. For those schooled in the 1960s, in the streets protesting against the war and in favor of racial rights, protesting medical paternalism and authoritarianism seemed to be a moral imperative.[75]

At Georgetown that moral imperative was taken seriously. The bioethics that emerged there was explicitly an ethic of individual rights. It was, moreover, an ethic that was increasingly framed in legal terms, considered necessary in a system in which competing rights became inevitable, and thus in which a need for conflict resolution became a necessity.

Increasingly, in the world of the new medicine and individualism, a turn to traditional theological guidance proved less and less adequate.[76] Initially, too, the philosophers who might have helped resisted engagement in the practical problems of

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[74] Veatch, "The Birth of Bioethics: Autobiographical Reflections of a Patient Person," 345.
[75] Ibid.
[76] Leroy Walters, ""Religion and the Renaissance of Medical Ethics in the United States: 1965-1975"," in *Theology and Bioethics*, ed. Earl E. Shelp (Dordrecht: D. Reidel, 1985), 3-16, at 7.

medicine.[77] Thus, without the supports of the traditional fields that had previously informed ethical practice, physicians turned for help to the law.

Lawyers in the United States were only too ready to assist. Their presence played a major role in determining the orientation of the new field. Daniel Callahan observes:

> Unfortunately, the issues much too rapidly got cast in the language of rights and legislation and regulation. The language common to courtrooms and legislatures became a strong and dominant language and in many ways tended to overpower some of the earlier interest in the deeper speculative and foundational side of the questions.[78]

The legacy of this approach is a minimalist, procedural ethic characterized by a strident individualism.[79]

It was not long, however, before philosophers began paying more attention to the ethics of medicine.[80] At this point, they sought a systematic and objective way to approach the ethical problems of medicine that was seen to be free of the traditional religious commitments of Western medical ethics. Such an approach had great appeal for an increasingly pluralistic and secularized society in which there was seen to be "an inherent bias against conceptions of human goodness or welfare attributable to particular convictions, including religious convictions, not shared by the entire society."[81]

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[77] Mark Meany, "Freedom and Democracy in Health Care Ethics: Is the Cart before the Horse?," *Theoretical Medicine* 17, no. 4 (1996): 399-414, at 399.

[78] Daniel Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," *Second Opinion* 9 (1988): 53-69, at 56.

[79] Daniel Callahan, "Minimalist Bioethics," *Hastings Center Report* 11, no. 5 (1981): 19-25.

[80] Baker, "From Metaethicist to Bioethicist," 70.

[81] Campbell, "The Moral Meaning of Religion for Bioethics," 387. According to Campbell "secularization" with respect to bioethics entails: (1) the removal of institutions such as medicine and values such as health from the influence of religion; (2) the relegation of religion to the private domain; (3) the rejection, even by theologians of the relevance of religion for bioethics; and (4) the subsuming of values once explicitly religious under principles more acceptable to the wider community.

In particular, the freedom from faith commitments in medical practice and bioethics suited the increasing heterogeneity of the medical profession and its schools.[82]

From among the many possible philosophical approaches available, the methodology of principlism, a variant of the theory of *prima facie* principles developed by W.D. Ross, soon came to dominate the Georgetown model of bioethics.[83] Georgetown scholars, Tom Beauchamp and James Childress, in their book *Principles of Biomedical Ethics*, adapted the approach to medical ethics. Their book is still held by some to be the 'canonical text' of bioethics.[84]

Beauchamp and Childress had recognized the difficulties of reaching agreement on fundamental questions of ethics in an increasingly pluralistic society. They agreed with Ross that principles should always be respected unless an obvious objection or exception can be made, thereby providing a way to circumvent problems of agreement at a more fundamental or particularist moral level.[85]

The principles of autonomy (self-determination), beneficence (to do good), non-maleficence (to avoid harm) and justice were seen by Beauchamp and Childress to be the most applicable for medical ethics. Beneficence and non-maleficence were compatible, they believed, with the Hippocratic and Judeo-Christian traditions in medicine. Moreover, the principles of respect for persons (understood as autonomy), beneficence (under which non-maleficence is subsumed), and justice (never clearly

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[82] Pellegrino, "The Metamorphosis of Medical Ethics: A 30-Year Retrospective," 1158-62, at 60.
[83] William David Ross, *The Right and the Good* (Oxford: Clarendon Press, 1965).
[84] Beauchamp and Childress, *Principles of Biomedical Ethics*. This book first published in 1979 is now in its 5th, edition which highlights its enduring influence on the field of bioethics. See: Tom L. Beauchamp and James F. Childress, *Principles of Biomedical Ethics*, 5th. ed. (New York: Oxford University Press, 2001).
[85] Pellegrino, "The Metamorphosis of Medical Ethics: A 30-Year Retrospective," 1160.

defined), had been set out earlier in the *Belmont Report* as guidelines for the conduct of human subjects research.[86] In practice, however, there were difficulties in the application of this so-called principlist approach. Chief among them was the difficulty of deciding which principle should prevail when there was a conflict among the principles in any given case or situation. Out of this difficulty arose a hierarchical ordering of the principles, with autonomy taking primacy of place.[87] Indeed, the emphasis on autonomy soon made "individualism the primary value-complex on which the intellectual and moral edifice of bioethics rests."[88]

Thus the bioethics shaped at the Kennedy Institute was characterized by a narrow medical focus concerned with acute care, a legalistic framework, a principlist methodology, and it was immersed in an ethos of casuistry and individualism. The Georgetown model of bioethics has become almost definitive of the discipline. History books and articles that describe the origins of bioethics commonly confine their accounts of its evolution to the parameters of this model. To do so, however, is to provide an incomplete and inaccurate account of the conception of bioethics. For, as a matter of fact, by the time the Kennedy Institute began to use the term "bioethics" publicly it had already been coined elsewhere and given a wider context and meaning.[89]

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[86] The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, "The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects," (Washington D.C.: U.S Government Printing Office, 1979).
[87] Callahan, "Minimalist Bioethics," 19.
[88] Renee C. Fox and Judith P. Swazey, "Medical Morality Is Not Bioethics - Medical Ethics in China and the United States," *Perspectives in Biology and Medicine* 27, no. 3 (1984): 336-60.
[89] Dutney, "Bioethics, Ecology, and Theology," 219.

The Wider Origins of Bioethics

The word "bioethics" was first used in 1970, by Van Rensellaer Potter, a biochemist and Professor of Oncology at the University of Wisconsin.[90] His first book, *Bioethics, Bridge to the Future*,[91] clearly illuminates how different Potter's formulation of bioethics was to the emerging "pragmatic, non-conceptual" and medically-oriented model of the time.[92] His vision was of a wide-ranging and integrated bioethics, incorporating the issues of biomedical development but transcending their boundaries. A glance at the book's Table of Contents (some of which are listed below) provides a sense of Potter's breadth of vision for the new discipline:

- Bioethics; the Science of Survival;
- Council on the Future;
- Dangerous Knowledge: the Dilemma of Modern Science;
- How is an Optimum Environment Defined?
- Teilhard de Chardin and the Concept of Purpose.

Potter's understanding of the issues of bioethics led him to conceptualize them within the framework of a coherent discipline, one that would bridge science and human values, cultures which in his view, had been too long separated.[93] Potter presented his conception of ethics as a global and scientific philosophy that embraced both biological and cultural evolution.[94]

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[90] Van Rensellaer Potter, "Bioethics, the Science of Survival," *Perspectives in Biology and Medicine* 14, no. 1 (1970): 127-53. See also: Warren T. Reich, "The Word "Bioethics": Its Birth and the Legacies of Those Who Shaped It," *Kennedy Institute of Ethics Journal* 4, no. 4 (1994).
[91] Van Rensselaer Potter, *Bioethics: Bridge to the Future* (Englewood Cliffs, N.J.: Prentice-Hall, 1971).
[92] Gerald M. Lower, "Van Rensselaer Potter: A Memoriam," *Cambridge Quarterly of Healthcare Ethics* 11, no. 4 (2002): 329-30, at 29.
[93] Van Rensselaer Potter, "Bioethics," *BioScience* 21, no. 21 (1971): 1088.
[94] Lower, "Van Rensselaer Potter: A Memoriam," 330.

As a medical scientist of international repute Potter did not eschew the ethical questions arising in the new medicine but he increasingly stressed the need to link what had become "mainstream biomedical ethics with environmental ethics".[95] In his presidential address to the American Association for Cancer Research Potter stated:

> The abortion issue has been coupled to the issue of euthanasia, since both involve the 'right to life' and this in turn leads to discussions about artificial prolongation of life without meaning, death with dignity, and human experimentation. All these questions [and earlier Potter also includes references to genetic engineering], involve ethical decisions regarding the wisdom of *when to do* and *when to leave be*. These questions certainly arise in the field of clinical oncology as the members of the cancer research community are well aware. However, my own view of bioethics calls for a wider and more purposeful understanding of biological evolution and cultural evolution. Significantly, in addition to medical bioethics it calls for the development of *environmental* bioethics, a matter of major concern to oncologists.[96]

Thus, Potter saw biology, medicine, culture and the environment as intellectually and pragmatically inseparable.

Potter's concept of bioethics was fundamentally inspired by his understanding of biology and by his concerns for the survival and sustainability of life on Earth.[97] His approach was also profoundly influenced by the work of Aldo Leopold, an influential pioneer in environmental ethics. Leopold had constructed a notion of a "land ethic" outlining human responsibility towards the Earth, which he understood to be fundamental to conceptions of human responsibility toward other humans.[98] Leopold saw Earth as community and humans as part of that community. This was a notion that

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[95] Peter J. Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter," *The American Journal of Bioethics* 3, no. 4 (2003): 26-31, at 26.

[96] Van Rensselaer Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," *Cancer Research* 35 (1975): 2297-306, at 300.

[97] Van Rensselaer Potter spent his professional life at the McArdle Laboratories for Cancer Research at the University of Wisconsin where he became the Hillsdale Professor Emeritus in Oncology. His particular research interests were in the field of cancer cell metabolism. In addition he held leading appointments with several national organizations (U.S.) including the Association of Cancer Oncologists, the American Association for Cancer Research and the National Academy of Sciences.

[98] Aldo Leopold, *A Sand County Almanac and Sketches Here and There* (Oxford and New York: Oxford University Press, 1949), 201-26.

was to become central to Potter's developments in bioethics.[99] He expressed it in the following way:

> What we must now face up to is the fact that human ethics cannot be separated from a realistic understanding of ecology [understood as a science of relationships] in the broadest sense. Ethical values cannot be separated from biological facts. We are in great need of a Land Ethic, A Wildlife Ethic, a Population Ethic, a Consumption Ethic, and so on. All of these problems call for action based on values and biological facts. All of these involve Bioethics, and the survival of the total ecosystem is the test of the value system.[100]

Like Leopold, Potter was concerned with formulating an ethic that would influence questions and guide behaviors towards the survival of human and other species.[101] Potter's work was therefore essentially "future-oriented". It was to become increasingly so as his conceptualization of bioethics evolved.[102] Essentially, Potter viewed the development of bioethics to be a critical contributor in efforts towards Earth sustainability and human survival.[103] The interests and concerns of medical science were but a part of that wider moral endeavor.

From the outset, Potter's ethics were comprehensive in nature, not only with respect to content but also in terms of participation and process. Interestingly, for example, at a time when specialization was increasing in professional life, and particularly in the sciences and medicine, Potter saw bioethics as a discipline that necessarily called for interdisciplinary input and method.[104] This he called his "basic bioethic" which he characterized as "humility with responsibility". By this he meant that in

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[99] Peter J. Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir," *Cambridge Quarterly of Healthcare Ethics* 11, no. 4 (2002): 331-34.
[100] Potter, *Bioethics: Bridge to the Future*, vii-viii.
[101] Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir," 332.
[102] See for example: Van Rensellaer Potter, "Getting to the Year 3000: Can Global Bioethics Overcome Evolution's Fatal Flaw?," *Perspectives in Biology and Medicine* 34, no. 1 (1990): 89-98. See also: Van Rensselaer Potter and Peter J. Whitehouse, "Deep and Global Bioethics for a Livable Third Millenium," *The Scientist* 12, no. 1 (1998): 9.
[103] Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir," 332.
[104] Van Rensselaer Potter, *Global Bioethics: Building on the Leopold Legacy* (1988), 2.

order to encompass the knowledge, cultural insights and experiences needed for ethical decision-making and living, mutual cooperation and learning was essential. He stated:

> It is not only in the realm of subatomic physics that our *a priori* conclusions cannot be trusted; in addition, they cannot be trusted when we attempt individually to decide the bioethical threshold issues in medicine and environmental science. Each of us needs help from other members of society, not just from specialists in the same discipline that we practice. This is where we need the bioethic of humility with responsibility.[105]

As Potter's work progressed he continued to illuminate and expand the term bioethics, differentiating his conceptions from those shaped by the dominant paradigm. He eventually selected the term "global bioethics" to describe his understandings of the discipline, a perspective reflected in his second book which he dedicated to Aldo Leopold in 1988.[106] In Chapter 2 I will go on to elucidate Potter's evolving conception of a global bioethics since it is a conception that I believe has the potential to provide a foundation upon which to build a new bioethic. What is clear at this point, however, is that even Potter's original conception of bioethics was considerably wider than the approach that came to dominate the field. Andrew Dutney remarks:

> When the term "bioethics" was coined, its primary reference was to the concerns of environmentalism. The "biological facts" to which "ethical values" were to be connected by this new discipline were not facts of medicine and health care, but those that were the concern of the life sciences in general – biology, biochemistry, ecology. Bioethics was conceived by Potter as the starting point for developing a "science of survival" to replace the self-defeating "growthmanship", which he recognized to have been exposed in Rachel Carson's, *Silent Spring*.[111]

Within a short time, however, Potter's global vision of bioethics was overshadowed by the medical model espoused at Georgetown. Warren Thomas Reich

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[105] Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," 2303.
[106] Potter, *Global Bioethics: Building on the Leopold Legacy*. See also: Van Rensellaer Potter, "Global Bioethics: Linking Genes to Ethical Behavior," *Perspectives in Biology and Medicine* 39, no. 1 (1995): 118-31.
[111] Dutney, "Bioethics, Ecology, and Theology," 220.

has identified some key factors that contributed to this state of affairs.[112] The medical dilemmas identified as bioethical at Georgetown were clearly experienced in a more immediate manner by the American public than the ecological concerns raised by Potter. The impact of the rights movement became intimately connected to medical issues. Thus individual rights gained a pre-eminence in the field of bioethics in contrast to the more relational dynamic of Potter's ecological ethic, in which the notion of responsibility was held to be primary. Some of the biomedical issues, abortion in particular, were politically inflammatory at the time, giving the Georgetown Institute a high profile in the media and generating wide public interest. Increasingly, the media turned to the Georgetown Center for a response pertaining to matters of ethics and medicine, thus establishing the Center's view of the discipline in the public consciousness.

Additionally, the critical analysis of clinical and research issues generated at Georgetown provided interesting material for university and school curricula thus expanding, nationally and internationally, the influence of the Georgetown perspectives and methods. With the addition of graduate programs in bioethics at Georgetown a whole new generation of bioethicists was able to replicate the model in their subsequent work. Moreover, the Director, André Hellegers had the social contacts necessary to generate substantial funds to support the endeavors of the Institute, thereby attracting outstanding scholars and enabling him to provide consultation for government agencies.

Lacking Helleger's advantages, Potter had less opportunity to disseminate his views. Fearing that a narrower model of bioethics would simply promote intervention over health promotion and disease prevention, he worked hard to sustain the wider

[112] Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings," 21-23.

view.[113] Without sufficient financial resources and the interest of the media, however, he was unable to expand his work and ideas adequately. Added to this, his commitment to cancer research left him little dedicated time for his direct bioethics work. Thus, the Georgetown model of bioethics with its medical focus, individualistic ethos and procedural methodology came to define and to dominate the field. Until recently, Potter's concept of bioethics was all but lost.[114] Even so, the renewed interest in the work of Van Rensellaer Potter remains marginal, while the Georgetown version of bioethics endures. As Hubert Doucet maintains, "In spite of major critiques that are addressed to the standard bioethics ...I do not think that the basic philosophy has been really challenged."[115]

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[113] Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address."

[114] An understanding of bioethics similar to that of Van Rensellaer Potter continued in a limited way into the 1980s, but had no wide impact. See for example: Charles Birch and John B. Cobb, Jr., *The Liberation of Life: From the Cell to the Community* (Cambridge: Cambridge University Press, 1981). Recent publications that have reviewed Potter's contributions include: Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings." See also: Reich, "The Word "Bioethics": Its Birth and the Legacies of Those Who Shaped It." Following Potter's death in 2001, his life and work received some further, albeit limited attention in the mainstream bioethics literature. Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir."

[115] Hubert Doucet, "How Theology Could Contribute to the Redemption of Bioethics from an Individualist Approach to an Anthropological Sensitivity" (paper presented at the The Catholic Theological Society of America Fifty-third Annual Convention, Ottawa, June 11-14 1998), 57. Over time many philosophical approaches have been proposed that challenge the dominant model of bioethics and in particular, its Principlist emphasis. Some critics, for example, have called for a development of virtue-based theory. See: Edmund D. Pellegrino, "Toward a Reconstruction of Medical Morality: The Primacy of the Act of Profession and the Fact of Illness," *Journal of Medicine and Philosophy* 4, no. 1 (1979). Alasdair McIntyre's book, *After Virtue*, continues to influence those who criticize the minimalism of the abstract paradigm. See: Alasdair MacIntyre, *After Virtue* (Notre Dame, Ind.: University of Notre Dame Press, 1981). Feminist scholarship over the years has promoted a wider vision of bioethics through an articulation of an ethic of care. Most notably see: Carol Gilligan, *In a Different Voice: Psychological Theory and Women's Development.* (Cambridge, MA.: Harvard University Press, 1982). Later feminist commentators have attempted to advance Gilligan's original arguments, with application to social theory and bioethics. See: Eva Feder Kittay, *Love's Labor: Essays on Women, Equality and Dependency* (New York: Routledge, 1999). Specifically, many feminist writers have contested a reductive understanding of autonomy. See: Catriona McKenzie and Natalie Stolijar, eds., *Relational Autonomy: Feminist Perspectives on Autonomy, Agency and the Social Self* (New York: Oxford University Press, 2000). Anthropologists and social scientists have sought a richer and more culturally sensitive bioethics. Marshall, "Anthropology and Bioethics." Others, including theologian, Stanley Hauerwas, emphasize the importance of narrative in our understandings of ethics. Stanley Hauerwas, *The Peaceable Kingdom* (Notre Dame and London: University of Notre Dame Press, 1983). More recently, those espousing pragmatism have also challenged the status quo. Christopher Tollefsen and Mark J. Cherry, "Pragmatism and Bioethics: Diagnosis or Cure?,"

In general, the critiques of the standard model do not dismiss all of its contributions. They acknowledge that it has helped bring to the fore important concerns emanating from scientific and medical developments. The principles of bioethics have helped build a framework for the discussion and analysis of the issues, and they have assisted patients, their families and health professionals in decision-making. Nonetheless, critics of the model have consistently pointed to its inadequate description of the moral process. Philosopher Onora O'Neill, for example, believes it represents an "awkward fit of theory to actuality." By this she means that an ethical framework that is characterized by individualism and abstract principle denies the reality of the lived moral life. She says, "A world of abstract individuals assumes away relations of dependence and interdependence." Yet these relations are "central to most lives actually available to [people]."[116] All of the major critics of the standard bioethics process appreciate O'Neill's perspective and reflect it in some way in their own statements.

Some recent writers, recognizing the centrality of relationship in the moral life, have proposed the adoption of an ecological model for bioethics. Daniel Callahan, for example, seeks to employ ecology as a metaphor for a more communitarian conception of the discipline.[117] Peter Whitehouse argues for a development of the notion of bioethics

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Journal of Medicine and Philosophy 26, no. 5-6 (2003): 534-43. John D. Arras, "Pragmatism and Bioethics," *Journal of Medicine and Philosophy* 28, no. 5-6 (2003): 597-613. None of the critiques advanced, however, have been sufficiently persuasive to supplant the dominance of the Principlist model of bioethics. Indeed, in a recent article, physician and ethicist, Ranaan Gillon, argues that with some massaging the four principles of bioethics, first articulated by Beauchamp and Childress in 1979, can still be employed in most situations of medico-moral concern. Raanan Gillon, "Ethics Needs Principles: Four Can Encompass the Rest and Respect for Autonomy Should Be "First among Equals"," *Journal of Medical Ethics* 29, no. 5 (2003): 307-12.

[116] Onora O' Neill, "Justice, Gender and International Boundaries," in *The Quality of Life*, ed. Martha C. Nussbaum and Amartya Sen (Oxford: Clarendon Press, 1993), 303-35, at 03. In this particular work, O'Neill is specifically referring to women while critiquing individualistic, abstract theories of ethics more generally. I have here, taken her critique to be applicable to the principlist context of bioethics.

[117] Daniel Callahan, "Principlism and Communitarianism," *Journal of Medical Ethics* 29, no. 5 (2003): 287-91.

originally proposed by Van Rensselaer Potter.[118] To date, however, there has been no serious attempt to explicate details of an ecological approach to bioethics. This thesis will argue that such an ecological approach is essential for the future and that theology has the potential to contribute significantly to the endeavor. Nonetheless, the theology needed to support an ecological model of bioethics will itself require criticism and development. For, I argue below that the theology involved in the origins of bioethics did little more than help support and sustain the current dominant model of the discipline.

Theology and the New Bioethics

As outlined earlier in this chapter, theology played a crucial role in the emergence of bioethics. While it is not possible given the primary focus of this thesis to include extensive detail about what form that role took I believe, nonetheless, that some key facts provide insight into theology's relationship to the differing concepts of bioethics.

Historically, Roman Catholic theologians were well placed to enter the emerging field of bioethics. Not only were they immersed in the Church's more general commitment to the care of the sick, they had also inherited the traditions and methods of moral theology, which had become a distinct discipline in the Church during the fifteenth century. Moral theology dealt with medical matters explicitly and in detail.[119] As early as the sixteenth century, for example, the distinction between "ordinary" and "extraordinary" medical interventions was articulated, suggesting an already detailed analysis of

[118] Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter."
[119] Jonsen, *The Birth of Bioethics*, 35.

particular medical acts in the light of a person's obligation to preserve his or her own life.[120]

At the beginning of the sixteenth century, and despite a continuing commitment to the wide theological vision of Thomas Aquinas, it was primarily the manuals of moral theology that came to shape the field, its content and its methodology.[121] A product of the decrees of the Council of Trent (1545-1563) regarding the administration of the sacrament of penance, the manuals of moral theology were intended to provide guides

[120] The distinction is believed to have been developed initially in the sixteenth century by theologians Dominico Soto and Dominico Banez. See: James J. McCartney, "The Development of the Doctrine of Ordinary and Extraordinary Means of Preserving Life in Catholic Moral Theology," *The Linacre Quarterly* 47, no. 3 (1980): 215-24. The distinction between "ordinary" and "extraordinary" medical intervention was later re-articulated by Pope Pius XII in the context of emerging technological developments in medicine. See: Pius XII, "The Prolongation of Life," *The Pope Speaks* 4 (1957-1958): 395-96. Although originally a theological conception, by 1974 it had been adopted by the American Medical Association and its use had become widespread in general medicine. See: Doucet, *Death in a Technological Society: An Ethical Reflection on Dying*, 67. The distinction persists today. Its application has become increasingly difficult, however, given the current complexity of medical development and the centrality and dominance of a principle of autonomy in bioethical decision making.

[121] Thomas Aquinas (1223-1274) in his great *Summa Theologica* presents a magnificently unified conception of theology with no dichotomy between doctrinal and moral theology. His moral vision is marked by three key features: (1) the human journey in search of happiness which culminates in the vision of God; (2) the way of the theological virtues with which God gifts us; and (3) the evangelical law in which the Gospel is seen not as text or external word, but as an inner and dynamic principle. For, while integrating Aristotelian moral thought with respect to the human goal toward happiness, (*eudaimonia*) into the Christian concept of living, Aquinas focuses primarily on the Scriptures and the works of the early Church Fathers for his exposition of the moral Christian life. In particular, he follows in the wake of St. Augustine in his translation of the notion of happiness in the Christian tradition. Aquinas sees the new law as the grace of the Holy Spirit, given to believers. For Aquinas written codes and commandments while necessary serve only as secondary principles that aid us to use the grace of God. The evangelical law holds primacy over natural law and the Decalogue without destroying them. The law of the spirit rather brings them to fulfillment. See: Servais Pinckaers, *The Sources of Christian Ethics*, trans. Sister Mary Thomas Noble (Washington, D.C.: The Catholic University of America Press, 1995), 14-22, 172-82. The core of Aquinas' ethics is not primarily the natural law but the virtues. Morality is operational at the level of the interior act and only secondarily at the level of the exterior act. Thus, natural law according to Aquinas is written in the human heart. The grace of the Holy Spirit penetrates the interior of the human person becoming the source of the virtues. Aquinas saw the call of the Beatitudes in the Sermon on the Mount as central to morality. The Beatitudes, in turn are Christ's response to the question of our personal happiness and final end. As Paul Wadell states, for Aquinas, "the goal of the moral life was perfect communion with God through love. Men and women make their way back to God by acquiring the virtues which bring likeness to God, virtues born of charity's love." See: Paul Wadell, *The Primacy of Love: An Introduction to the Ethics of Thomas Aquinas* (New York and Mahwah, N.J.: Paulist Press, 1990), 17. The initial sources for this synopsis were derived from: David Bohr, *Catholic Moral Tradition: Revised* (Huntington, Ind.: Our Sunday Visitor Publishing Division, 1999), 66-67.

for confessors and for the faithful with respect to their particular obligations in life.[122] The manuals, in chapter form, set out duties corresponding to each of the Ten Commandments. They defined sin, categorized as mortal or venial, as a violation of those commandments.[123] In the manuals concerning medicine, for example, under the Fifth Commandment, "Thou shalt not kill", the duties of doctors and the obligations of the sick were listed.[124] The manuals were guides to the concrete demands of day-to-day living. They heavily and increasingly incorporated canon law as attempts to codify the multiplicity of Church teachings intensified. Essentially, they viewed morality from the perspective of the individual Christian and his or her particular moral obligations, not from a more comprehensive perspective of Christian vocation.[125] As Servais Pinckaers notes:

> Post-Tridentine moralists thus boxed in the church's moral teaching, which they were trying to transmit in all fidelity, in too small an enclosure, where the theological virtues were constricted and where there was no room for the gifts of the Holy Spirit, grace, and the Evangelical law – the best of the Gospel.[126]

This relatively narrow approach to morality was instilled in seminarians. Using the manuals as 'rule books', moral problems identified with caring for the sick (and other ethical issues) were subjected to rigorous analysis in a process of casuistry, a central strategy in the education for those being prepared for ordained ministry in the Roman Church[127]

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[122] The manuals formed a pivotal role in the education of future priests in the seminary system, a system that had been initiated by the Council of Trent to address the deep lack of theological preparation among Roman Catholic priests of the time.
[123] John A. Gallagher, *Time Past, Time Future: An Historical Study of Catholic Moral Theology* (New York: Paulist Press, 1990), 29.
[124] Jonsen, *The Birth of Bioethics*, 36.
[125] Gallagher, *Time Past, Time Future: An Historical Study of Catholic Moral Theology*, 30-31.
[126] Pinckaers, *The Sources of Christian Ethics*, 288.
[127] During seminary education, *casus conscientiae*, - cases of conscience were held several times a week. A particular case would be presented to students and they would be asked to reach some resolution of the issues. The professor, and there were specially appointed professors of casuistry, would then address the theoretical as well as the practical aspects of the case. See: Gallagher, *Time Past, Time Future: An Historical Study of Catholic Moral Theology*, 34.

Although commonly described as having been influenced by the theology of Thomas Aquinas, in fact the manuals of moral theology presented at best a truncated Thomistic vision lacking the rich spiritual framework within which Aquinas understood the role of codes and commandments in fulfillment of the wider Christian vocation.[128] Absent from the manuals, for example, was Aquinas' prioritization of happiness as the primary end of the Christian life, his commitment to friendship with God and others as the keystone of morality, his deep reliance on Scripture, particularly the Beatitudes, for answers to questions of human happiness, and his understanding of the tension between freedom and law in the moral life.[129] Rather, what the manuals represented was a strict systematization of morality as obligation. In the manuals, "Christian love was subordinated to commandment."[130]

Servais Pinckaers traces the emphasis on a morality of obligation primarily to the theological perspectives of William of Ockham (1280-1349).[131] Following Ockham, Pinckaers says, "Obligation became the essence of morality."[132] Ockham's notion of freedom in particular profoundly influenced understandings of morality. Ockham believed that freedom was defined by a claim to radical autonomy. He identified freedom with the

[128] The early sixteenth century manuals, and the late nineteenth and early twentieth century manuals are in particular commonly, if inaccurately, described as reflecting the thought of Aquinas. Servais Pinckaers, points out, for example, that authors of the early manuals, like John Azors, believed in good faith that they were accurately adopting Aquinas' ideas and positions, not realizing that they were giving them a very different meaning because of the structure of moral theology in which they situated them. See: Pinckaers, *The Sources of Christian Ethics*, 279.
[129] Ibid., 17-24.
[130] Richard Gula, *To Walk Together Again: The Sacrament of Reconciliation* (New York: Paulist Press, 1984), 158.
[131] Pinckaers, *The Sources of Christian Ethics*, 240-53. In my discussion of Ockham here I will outline what I see to be some main characteristics of his work. The characteristics that I will highlight contribute, I believe, to some important insights into the development of moral theology and I will argue further that they also provide insights into the development of contemporary bioethics. It is not possible, however, given the scope of this thesis and the research that grounds it, and thus my limited study of the topic, to include details and nuances of Ockham's complex theories. I hope, nonetheless, to have provided an accurate account of key features of Ockham's thought, primarily through reference to secondary sources and to a primary source where a specific quotation is included.
[132] Ibid., 251 52.

will, independent of all that is external to it. Thus, "Freedom was separated from nature, law and grace; moral doctrine from mysticism; reason from faith; the individual from society."[133]

Ockham's view of freedom was rooted in Nominalist philosophy which held that only individual realities exist. Universals are but useful labels having no reality in themselves. Nominalism argues that we should concentrate only on isolated particulars. In the moral context, Nominalism held that reality resides in the individual decision of the free will, defined as the power to choose between contraries, independently of any extraneous cause other than freedom or the will itself, a so-called, *freedom of indifference*. "What I mean by freedom", stated Ockham "is the power I have to produce various effects, indifferently and in a contingent manner, in such a way that I can either cause an effect or not cause it without any change being produced outside of this power."[134] Free acts are generated instantaneously from choices that have no cause other than the power of self-determination exercised by the will. From such an argument it then follows that each free act constitutes a single reality, "isolated in time by the very power that enables us to choose between contraries."[135] A commitment to past acts or obligations to any future act have no relevance within this framework without loss of the freedom that is always ours in the present moment. Human behavior becomes simply a succession of individual and unrelated actions. Any connection between them would be beyond the bounds of freedom. In this manner of thinking, an understanding of final ends or of unity is lost. In contrast, Thomas Aquinas held that free action was defined by the human capacity to act with an end in view. Indeed his *Summa* begins with a treatise on happiness which he believes to be the end and unity of all our actions. Ockham, while

[133] Ibid., 242, 332-33.
[134] *Quodlibeta Septem*. 1, q. 16
[135] Pinckaers, *The Sources of Christian Ethics*, 243.

acknowledging the importance of the end as the principal object of the free act, denied the notion of end as a connecting or unifying feature of acts. Human action, from Ockham's perspective, was thus constituted by a series of free decisions or independent acts, what would later become known as cases of conscience, related only superficially. Each act would be analyzed in isolation. With such notions of freedom and of human action, Ockham prepared the groundwork for the casuistry that later came to characterize education in the Manualist Tradition of moral theology.[136]

Ockham's work had a further powerful and long-ranging impact on moral theology. Given his concept of individualized realities, divine and human freedom constituted two absolutes. In this situation, humans had no possible natural way of reaching God or of knowing God's will. How, then, did Ockham link these two absolutes to allow an omnipotent God to impose divine will on creatures? A notion of dependence between God and humans established the link. Ockham believed that humans, as creatures separate from a transcendent God, continually need to be sustained in their existence. They are essentially and radically dependent on God. Such total dependence, according to Ockham, constitutes the only possible link between humans and God. Thus, while human freedom was understood by Ockham to be total freedom within the human context, the dependent "condition of creaturehood subjected human freedom to the omnipotence of the divine will".[137] The source of the bond between humans and God was God's will manifest as obligation. The higher divine will placed constraint on the lower human will. Servais Pinckaers explains:

> The expression of God's will imposed itself on human freedom as an obligation and limitation. Moral teaching expressed essentially, therefore, a relationship of the will. It focused on the idea and sentiment of obligation, which was henceforth to be the fundamental assumption of moral theory. Freedom of indifference, law

[136] Ibid., 243-44.
[137] Ibid., 343.

> and obligation became inseparable. ... Moral law had no other foundation than the pure will of God from which it issued.[138]

If morality originated solely in the divine will, isolated human actions would be judged morally only in respect of their relationship to the law. Like the freedom from which they arose they could be viewed as "indifferent". Their moral identity was realized only through "the intervention of the law: good if they conformed to it, bad if contrary to it". The relationship was purely accidental.[139]

The divine law, according to Ockham, was communicated to us primarily through Scriptural revelation.[140] Only Scripture was "true and infallible" in the communication of God's will expressed directly through God's precepts. Understanding of this divine revelation required, however, development through explication and deduction. This was the work of the apostles and their successors who deduced laws from God's precepts and it was also the work of other Christians who, endowed with the gift of prophecy, interpreted Scripture and set out regulations deduced from it.[141] The impact of the

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[138] Ibid., 344. As Servais Pinckaers here points out, Ockham's thesis does not adequately elucidate the tension between freedom of indifference and law that is present in his arguments.

[139] Ibid.

[140] Nominalism denied the possibility of discovering the divine will through human nature or through knowledge of God.

[141] Pinckaers, *The Sources of Christian Ethics*, 346. It is in Ockham's acceptance of the interpretive role of the apostles and their successors here that I believe, given Catholic understandings of apostolic succession and the teaching mandate of bishops, he embraces traditional belief in the authority of the Church to interpret the divine will promulgated in Scripture. This point is not made explicit, however. Moreover, it is not clear how Ockham squares his understanding of "freedom of indifference" with traditional understandings of the authoritative teaching role of the Church although this is most likely linked to his understanding of the exercise of reason. In his logical explication of "freedom of indifference", as I have earlier implied, Ockham established a clear dichotomy between reason and the will which he identified with that freedom. In order to maintain the total freedom of the will, Ockham had to assert such separation. He did so by maintaining, as a pre-supposition, the "power of contraries, the ability to say yes or no regardless of all reason". Nonetheless, in his acceptance of the interpretive functions of the apostles, their successors and others with respect to divine revelation, Ockham conceded the importance of reason. Indeed, he assigned an important role to reason for the deduction he believed was necessary to make clear the content of Scripture in order to discover the will of God. Beyond this, Ockham also asserted a more direct role to reason in his moral theory. He believed that God's will was revealed to human reason itself. It was revealed in the form of clear moral

nominalist approach to the reading and interpretation of Scripture on the shape of moral theology was significant and far-reaching. Reading of Scripture focused almost entirely on the manifestation of divine law. Passages that seemed to express stable and universal precepts or principles were specifically sought out. The Ten Commandments provided the clearest articulation of such fundamental precepts. These precepts were seen as "sources of strict obligation" for all people. A consequence of this seeking out of precepts was that entire sections, in some cases whole books of the Bible, not containing such precepts were neglected in the articulation of faith and morals. The richness of Biblical interpretation that characterized the Patristic era in the Church was lost. Those parts of Scripture that were considered important were, furthermore interpreted in a narrow juridical context. Thus, goodness and love were equated solely with the fulfillment of one's obligations with respect to the law. It was this perspective that was to so radically transform moral thinking and later to shape the long tradition of moral theology and pastoral education. Essentially, Ockham's approach generated an "ethical individualism and moral legalism".[142]

This construct of moral theology dominated Roman Catholic thought and, specifically, engagement in medical ethics for four hundred years until the Second

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obligation or a moral imperative prior to its manifestation to the free will. (In this regard, I believe, Ockham may be seen as a forerunner of Kant in his articulation of the categorical imperative.) All humans, Ockham maintained had a spontaneous sense of the rightness or wrongness of actions. In this way, Ockham linked his notion of freedom to the law as revealed in reason. Right reason or conscience is thus privileged. In reason, Ockham also saw the foundation of natural law. For him, the primary principle of morality would be the duty to act in accordance with the dictates of reason, even if reason can sometimes err. In this context, I believe, Ockham's theory to be consistent with traditional understandings of the primacy of freedom of conscience within the Catholic tradition and specifically with respect to law and the authoritative teaching of the Church. For a discussion of Ockham's understanding of the role of reason to which I have referred in the development of this footnote see: Pinckaers, *The Sources of Christian Ethics*, 347-48. For an excellent overview of understandings of conscience in the Catholic tradition see: Richard Gula, "Conscience," in *Christian Ethics: An Introduction*, ed. Bernard Hoose (Collegeville, MN: Liturgical Press, 1998), 110-22.

[142] Richard P. McBrien, *Catholicism* (San Francisco: Harper and Row, 1981), 931.

Vatican Council.[143] Increasingly, during the twentieth century, the legalistic perspective of the manuals was reinforced by the escalating teaching of the hierarchical *magisterium* on moral matters. In particular, during his long papacy, (1939-1958) Pope Pius XII produced a large corpus of learned treatises dealing with a wide range of concerns in the field of medical science and ethics. He did not simply raise questions for discussion, but, consistent with the ethos of his papacy, he spoke and wrote authoritatively on the issues.[144] Thus, as Albert Jonsen points out, "When the *magisterium* pronounced on an issue, such as abortion or contraception the final word had been said and the theologians respectfully concluded their debates."[145] Even with the changes inspired by the Second Vatican Council and the contemporaneous birth of bioethics in the 1960s, this longstanding Roman Catholic tradition in moral theology continued to be evident and influential.[146]

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[143] It is fair to say, however, that over time there was some evidence of modification and indeed challenge within the tradition. During the eighteenth century for example, the more pastoral influence of Alphonsus Liguori (1696-1787), a product primarily of his response to the controversies over the rise of Probabilism was evident in the manuals of the day. The primary legalistic emphasis of the manuals nevertheless, continued. In late eighteenth and early nineteenth century Germany, under the influence of the Enlightenment, and a fledgling ecumenism there were some attempts to reform the Manualist Tradition. In particular, at the University of Tübingen, scholars inspired by the findings of contemporary biblical studies, attempted to introduce a wider context for the discussions. This had little impact in Rome at the time, however, since political tensions over the loss of the Papal States pre-occupied the focus of the Vatican. Furthermore, in his attack on Enlightenment thinking, Pope Pius IX effectively quashed more liberal theological development. Following World War I the Redemptorist theologian, Bernard Häring and the Jesuit, Joseph Fuchs were sent to Rome to teach at the Pontifical Universities. They endeavored to draw attention to the theological renewal started in Germany during the preceding century and they had some small success. Nonetheless, as David Bohr points out, "in most countries, the highly individualistic, legalistic, and casuistic approach of the manuals continued to be presented in seminaries until after Vatican II. See: Bohr, *Catholic Moral Tradition: Revised*, 71-73.

[144] Jonsen, *The Birth of Bioethics*, 36. On the centrist culture of the papacy of Pius XII see: John Cornwell, *Hitler's Pope: The Secret History of Pius X11* (London: Penguin Books Ltd., 1999).

[145] Jonsen, *The Birth of Bioethics*, 36.

[146] David F. Kelly, *The Emergence of Roman Catholic Medical Ethics in North America: A Historical-Methodological-Bibliographical Study* (New York and Toronto: The Edwin Mellen Press, 1979), Chapter 3.

What I want to suggest here is that it was this entrenched Roman Catholic approach to moral issues in medicine that primarily helped define and sustain the dominant model of bioethics that emerged.[147] In some significant respects, bioethics as it is generally construed today represents a mirror-image of the focus and methodology of traditional moral theology.

The New Bioethics and Traditional Moral Theology: Mirror-Images

In both traditional moral theology and in the new bioethics there was a highly specific focus on medical issues. Although the Church had a long history of caring for the sick, with the emphasis on caring over curing, moral theology's dominant concern in matters of health care was to provide an increasingly detailed analysis of specific medical issues.[148] The manuals of moral theology sought to provide guidance on discrete, concrete demands of day-to-day living.[149] So too, did *Magisterial* documents on medical matters.[150] The new bioethics was similarly pre-occupied with the immediacy

[147] In making this statement it is not my intention to disclaim the important contribution made by the Anglican and Protestant traditions to bioethics, to which I will refer in more detail later in this section. These traditions, however, had not developed, over the centuries, the same highly specific engagement with medical ethics as had the Roman tradition. Thus, if for no other reason, saving its longevity, the Roman Catholic approaches to matters of medical ethics were the more familiar and dominant. Indeed, Protestant writings in detailed medical ethics had been quite limited before the middle of the twentieth century. In introducing his 1954 publication, *Morals and Medicine*, Joseph Fletcher, for example writes, "To my knowledge, nothing of this kind has been undertaken by non-Catholics as yet." See: Fletcher, *Morals and Medicine. The Moral Problems Of: The Patient's Right to Know the Truth, Contraception, Artificial Insemination, Sterilization, and Euthanasia*, xi.

[148] Gary B. Ferngren, "Medicine and Compassion in Early Christianity," *Theology Digest* Winter (1999): 315-26, at 18.

[149] Gallagher, *Time Past, Time Future: An Historical Study of Catholic Moral Theology*, 31. This attention to specific medical issues was especially evident at the turn of the twentieth century. With the foundation of Catholic hospitals throughout North America, moral theologians began to write treatises on medico-ethical matters for doctors and nurses. The first such treatise, a collection of lectures given by Charles Coppens to medical students at Creighton Medical College in Omaha, Nebraska, dealt for example, with the topics of sexuality, abortion, eugenics, euthanasia, insanity and hypnosis. See: Charles Coppens, *Moral Principles and Medical Practice: The Basis of Medical Jurisprudence* (New York: Benziger Brothers, 1897).

[150] The collected speeches on medicine of Pius XII, for example, begin alphabetically with "abbreviation of life, abortion, antibiotics" and end with "ultrasound, virus, and the willing

of the developments taking place in medicine. In fact, it was precisely the urgency of particular medical issues in individual lives that helped define the parameters of the new bioethics.[151]

Also significant is the fact that traditional moral theology, especially in its presentation in the manuals, and bioethics in its primary definition, share a belief in the rational character and universality of moral teaching.[152] The classical understanding in theology of natural law, for example, as universal and capable of being known by all people whether or not they are Christians, is not dissimilar to the embrace of universal principles by the new bioethics. For in the increasingly pluralistic society into which bioethics was born there was a concerted effort to identify self-evident, moral principles that all rational people, regardless of culture or creed, could accept as true guides for the living of the moral life.[153]

Of those principles that came to be so central to bioethics, the principle of autonomy rooted in liberalism gained pre-eminence.[154] I would argue that this emphasis also reflected a basic theological position. It will be recalled, for example, that for Ockham, whose theological stance informed the manuals, a notion of freedom was central to morality, and freedom was defined, as it also came to be in bioethics, by a claim to radical autonomy. The autonomy that defined freedom in this way was

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acceptance of suffering." See: Pius X11, *Discorsi Ai Medici* (Rome: Orizzonte Medico, 1954). Cited in: Jonsen, *The Birth of Bioethics*, 36.

[151] Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings," 22.

[152] For theological references to the rational and universal character of moral teaching, especially associated with understandings of natural law, see for example: J. Philip Wogaman, *Christian Ethics: A Historical Introduction* (Louisville, Ky.: Westminster/John Knox Press, 1993), 88. Also see: Pinckaers, *The Sources of Christian Ethics*, 99.

[153] Pellegrino, "The Metamorphosis of Medical Ethics: A 30-Year Retrospective," 1160.

[154] Ibid.

"separated from all that was foreign to it" and from all external factors,[155] just as in bioethics the principle of autonomy has been absolutized, by which I mean that no other moral claims might trump it.[156]

There is a further feature of autonomy that suggests a mirror image between theology and bioethics. Understood in the traditional theological model, and influenced by Nominalist conceptions of particulars, autonomy pertains to choices to be made about single acts or realities. It is the use of free will that enables such choices to be made yet isolates each act from any other.[157] Similarly, I would argue that in bioethics the exercise of autonomy in health care choices usually refers to single acts or realities, that is, medical interventions isolated one from the other in time. As Hubert Doucet claims, the Dominant North American conception of bioethics, so entrenched in a notion of abstract autonomy, has been largely reduced to the question, "does the competent individual agree with *the* [proposed] procedure?"[158] There is fragmentation in such an approach, whether in theology or in bioethics. In the theology of the manuals, for instance, moral analysis of individual acts to guide the practices of confession was largely divorced from the wider relational, vocational and Scriptural contexts of meaning.[159] Even where the manuals of moral theology did incorporate systematic theology and theory, they did so "only to the extent that these were necessary for the resolution of specific issues."[160] Likewise in bioethics, analysis of individual acts is carried out with little reference to the wider context of which they form but a part. The notion of relationship between specific

[155] Pinckaers, *The Sources of Christian Ethics*, 242.
[156] As Edmund Pellegrino points out, "many fear that its [autonomy's] absolutization may override good medical judgment, encourage moral detachment .... And even work against the patient's best interests." See: Pellegrino, "The Metamorphosis of Medical Ethics: A 30-Year Retrospective," 1160.
[157] Pinckaers, *The Sources of Christian Ethics*, 243.
[158] Doucet, "How Theology Could Contribute to the Redemption of Bioethics from an Individualist Approach to an Anthropological Sensitivity", 53.
[159] Pinckaers, *The Sources of Christian Ethics*, 17-24.
[160] Gallagher, *Time Past, Time Future: An Historical Study of Catholic Moral Theology*, 35.

facts and interventions, between human, nature and society, and between people, for example, is largely lost. The relevance of the past or implications for the future, with respect to the individual act under consideration, is minimal at best. The ends or goals of health care are rarely considered relative to the analysis of the specific treatment decision. Indeed, such goals, within the context of bioethics, go largely unexplored and unspecified.[161] Thus the only effective, albeit minimal, dynamic of connection and the only limiting principle within such a theological or philosophical ethos, is law.

I suggest, therefore, that the manuals' preoccupation with law found a quite natural place in the new bioethics as it sought to define and to resolve its issues by reference to the law.[162] Both were naively to seek laws to resolve difficult problems in a simple way - some sort of 'ready-reckoner' for the simple management of problems that in the main were far too complex for such ease of response. This is not to say that there is no place in the moral life or the life of faith for the law. Rather, it is to claim that both the Manualist expression of moral theology and the new bioethics understood and used law in an overly simplistic manner, one not sufficient to embrace the nuanced reality of the lived moral life.[163]

The final parallel that I see between traditional Roman Catholic moral theology and the new bioethics is a methodological one. The practice of casuistry born in the seminary system was enthusiastically embraced by teachers of bioethics.[164] Theologians of all denominations working in the new field of bioethics emphasized its importance.

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[161] Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," 59-60.
[162] Ibid.: 56.
[163] Ibid. See also: Pinckaers, *The Sources of Christian Ethics*, 181. Wogaman, *Christian Ethics: A Historical Introduction*, 88-89.
[164] Albert R. Jonsen and Stephen Toulmin, *The Abuse of Casuistry: A History of Moral Reasoning* (Berkeley and Los Angeles: University of California Press, 1988). See also: Albert R. Jonsen, "Casuistry and Clinical Medicine," *Theoretical Medicine* 7 (1986).

Paul Ramsey, for example, stated, "Medical ethics today must, indeed be 'casuistry'; it must deal as competently and exhaustively as possible with concrete features of actual moral decisions of life and death and medical care."[165] Casuistry thus allowed bioethics to focus on specific acts and issues.[166] Furthermore, just as theological casuistry, rooted in its practical applications to confession, had been concerned with the individual's faith and moral life, casuistry used as a tool for teaching bioethics too similarly emphasized the centrality of the individual. It conveniently corresponded to traditional understandings of the doctor-patient relationship.[167] It matched existing methods of medical teaching.[168] It embedded the discipline of bioethics within a medical model of ethics. Moreover, it fit well with the social ethos of the individual that was beginning to pervade North American society as bioethics came into being.[169]

Indeed, "fitting well" is the term I would use not only to describe specific components of traditional theology and particular aspects of bioethics but also the term I would apply to the relationship between traditional moral theology and bioethics as a whole. For, explored carefully, I believe the correspondence between the two becomes striking. Thus, I argue that it was inevitable that the theology engaged with bioethics from its beginnings would provide impetus for, and help sustain, the dominant paradigm that emerged. This claim, however, requires some further qualification because it leaves two important questions unanswered.

First, if I am correct in my assertion, why did the liberating effects of Vatican II in the Roman Church, together with the important Protestant contributions to the birth of

[165] Ramsey, *The Patient as Person: Explorations in Medical Ethics*, xvii.
[166] Dutney, "Bioethics, Ecology, and Theology," 213.
[167] Loewy, "Bioethics: Past, Present, and an Open Future," 388.
[168] Kenny, "The Ethic of Care and the Patient-Physician Relationship," 357.
[169] Callahan, "Bioethics," 248-49.

bioethics, have such minimal impact on the shaping of the discipline? For together their potential to transcend the limited theological paradigm, that I claim dominated the forming of bioethics, was great.

The Second Vatican Council, for example, called for a radical renewal of moral theology. In its *Decree on the Training of Priests*, it urged that the discipline should be enlivened by the mystery of Christ and the history of salvation.[170] The teaching and learning of moral theology should be rooted in the Scriptures and Patristic literature, and it should reflect the Christian vocation of charity for the life of the world.[171] Similar guidance is given in the Council's *Pastoral Constitution on the Church in the Modern World*, when it called for an integrated vision of the Christian vocation, based on a synthesis of Scripture, doctrine, spiritual and moral life and liturgical celebration.[172] Consequently, says John Mahoney, the excessively analytic approach to moral theology, "the short-sighted peering at parts", that had prevailed for centuries, was rejected.[173]

This fresh vision of moral theology gave impetus to the Roman Catholic theologians involved at the inception of bioethics. It provided a seedbed, corresponding to that generated by the new biology and medicine, which enabled them to challenge the tradition. Richard McCormick, Charles Curran and Bernard Häring disputed the exclusive dependence on natural law, a characteristic of Catholic moral theology for centuries. They began to bring a more nuanced interpretation to the pronouncements of

[170] *Optatam totius* in: Austin Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents* (Dublin: Dominican Publications, 1975), 707-24.
[171] Bohr, *Catholic Moral Tradition: Revised*, 29.
[172] *Gaudium et Spes* in: Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents*, 903-1014.
[173] John Mahoney, *The Making of Moral Theology: A Study of the Roman Catholic Tradition* (Oxford: Oxford University Press, 1987), 310.

the *Magisterium*.[174] Even some of the long-held principles of Catholic moral teaching, such as the doctrine of double effect, became the subject of debate.[175] Added to this, the theologians and the Church more generally were called by the Council to greater unity with other Churches. The Council's Decree on Ecumenism advocated open and respectful dialogue which resonated with the goals of the wider ecumenical movement that at the time was gaining momentum.[176] Moreover, such dialogue was not confined to inert conversation. It was based on the conviction that truth could be uncovered by such conversation. Catholic and Protestant theologians began to talk, to share, to learn from one another, and to work together in the newly formed centers of bioethics. Much was gained from a sharing of traditions and experiences and in many circumstances it was possible to develop fresh and common ground for moral discourse and action.[177]

Anglican and Protestant theologians brought an open and vibrant contribution to the emerging bioethics. In particular, they focused on wide Scriptural themes such as "justification and covenant, law and grace, providence and freedom".[178] Episcopalian Joseph Fletcher, for example, wrote of freedom and of the Biblical concept of *agape,* God's loving care for humankind which included an obligation for humans to care for one another.[179] Paul Ramsey's work, as noted earlier, centered on covenant.[180] Others such as H. Richard Niebuhr wrote of human responsibility informed by belief about God as

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[174] See for example: Richard A. McCormick, "The New Medicine and Morality," *Theology Digest* 21, no. 4 (1973): 308-21. Charles E. Curran, *Medicine and Morals* (Washington, D.C.: Corpus, 1970). Charles E. Curran, ed., *Contraception, Authority and Dissent* (New York: Herder, 1969). Bernard Haring, *Medical Ethics*, trans. Gabrielle L. Jean (Slough: St. Paul Publications, 1972).
[175] Jonsen, *The Birth of Bioethics*, 38.
[176] *Unitatis Redintegratio* in: Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents*, 452-563.
[177] Jonsen, *The Birth of Bioethics*, 41.
[178] Ibid., 38.
[179] Fletcher, *Morals and Medicine. The Moral Problems Of: The Patient's Right to Know the Truth, Contraception, Artificial Insemination, Sterilization, and Euthanasia.*
[180] Ramsey, *The Patient as Person: Explorations in Medical Ethics.*

Creator and Redeemer.[181] However, this was not all theoretical. There was considerable commitment in the Anglican and Protestant traditions to social action, much of it relevant to the debates in medicine.[182] The Protestant focus on individual faith and personal conscience and a rejection of Catholic legalism led some theologians to demand greater attention to context in moral analysis.[183]

All of these contributions brought fresh air to the bioethical debates. They formed the grounding for new questions. They challenged long-held assumptions making possible some healthy cross-fertilization of ideas.[184] Exploration of concepts not previously applied to medicine was achieved. Importantly, the reality of moral ambiguity in the new medicine was acknowledged with honesty.[185] *The Pastoral Constitution on the Church in the Modern World* emanating from the Second Vatican Council summed up the situation well. "The Church", the document stated:

> safeguards the deposit of God's Word, from which religious and moral principles are drawn. But it does not always have a ready answer to individual questions, and it wishes to combine the light of revelation with the experience of everyone in order to illuminate the road on which humanity has recently set out.[186]

The potential for a future, collaborative and innovative theological role in the development of bioethics was unprecedented. However, it was not to be, at least in any comprehensive manner, for within a short time following the birth of bioethics, the theological voice was largely lost.[187] There are several key reasons for this demise.

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[181] H. Richard Niebuhr, *The Responsible Self* (New York: Harper Collins, 1963).
[182] For a clear summary of the foundations of such social commitment see: Duncan B. Forrester, "Social Justice and Welfare," in *The Cambridge Companion to Christian Ethics*, ed. Robin Gill (Cambridge: Cambridge University Press, 2001), 195-208.
[183] Jonsen, *The Birth of Bioethics*, 40.
[184] Ibid., 40-41.
[185] Thielicke, "Ethics in Modern Medicine." See also; Richard A. McCormick, *Ambiguity in Moral Choice* (Milwaukee, Wisc.: Marquette University Press, 1973).
[186] *Gaudium et Spes*, 33 in: Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents*, 933.
[187] Campbell, "The Moral Meaning of Religion for Bioethics," 387.

Many of the theologians involved in the development of bioethics simply "migrated into the bioethical world."[188] They found the interdisciplinary environment of the new centers of bioethics stimulating and rewarding. Others found their way into medical schools where their expertise in normative ethics was valued. Some experienced greater academic freedom in the newly-formed centers for religious studies in which the moral questions of the new biology and medicine were increasingly raised. The situation was particularly liberating for some of the Roman Catholic theologians who, despite the openness of Vatican II, were at the inception of bioethics, still in the shadow of a long and powerful tradition of *magisterial* teaching. Their migration from seminaries and faculties of theology left them less fearful of ecclesiastical censure.[189] Furthermore, the environment into which bioethics was born was not a particularly hospitable one for the theological voice. As James Gustafson remarked, despite the fact that theology had much to offer the new bioethics, "for most persons involved in medical care and practice, the contribution of theology is likely to be of minimal importance, for the moral principles and values needed can be justified without reference to God, and the attitudes that religious beliefs ground can be grounded in other ways."[190] Most believed that policy to address the moral concerns of the day within the context of increasing societal and professional heterogeneity was best situated in a secular voice rather than a religious one.[191] As James Gustafson and Stanley Hauerwas noted:

> As medical ethics became a growth industry in the academic world, and as the traditional religious and theological bases for their work apparently lost significance, many of the theologically trained speakers and writers repressed, denied, or became indifferent to theology as a field. The historic religious

[188] Jonsen, *The Birth of Bioethics*, 57.
[189] Ibid., 37. Subsequent, and particularly recent decades, have seen gradually increasing concerns about possible censorship among many Roman Catholic teachers of bioethics. Certainly this has been my own experience and that of colleagues working in the field in North America.
[190] James M. Gustafson, *The Contributions of Theology to Medical Ethics* (Milwaukee: Marquette University Press, 1975), 93.
[191] Charles Curran, *Moral Theology at the End of the Century: The Père Marquette Lecture in Theology 1999* (Milwaukee WI: Marquette University Press, 1999), 44.

> communities of our culture, which are bearers of symbols and traditions and of patterns of thought about practical moral questions, were seen even by persons who belonged to them to be divisive.[192]

Additionally, there was little internal agreement among theologians working in the field on what constituted a specifically Christian ethic for medicine. The certainties of the past no longer seemed relevant. Thus, "with few exceptions, the theologians and the philosophers, who were partners in the early medical ethics, merged into one – the bioethicist."[193] Theological contributions that might well have challenged and enriched mainstream bioethics were lost.[194] They were called into service only in "religious cases," or for discussion within the particular faith communities themselves.[195] Thus as the new bioethics evolved, any theological roots that remained a part of it were I contend, those that were inherent in the Western psyche yet now not acknowledged as religious. They were the roots of the more circumscribed tradition that had first been involved in the new bioethics; the same roots that ultimately, in my view, helped give bioethics its dominant shape.

A second question relevant to the shape of bioethics remains however. What was the relationship, if any, between theology and the original ecological conception of bioethics? For given an alternative and longstanding theological tradition in the Christian

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[192] James M. Gustafson and Stanley Hauerwas, "Editorial: Theology and Medical Ethics," *Journal of Medicine and Philosophy* 4 (1979): 345.
[193] Jonsen, *The Birth of Bioethics*, 58.
[194] McKenny, *To Relieve the Human Condition: Bioethics, Technology, and the Body*, 11.
[195] Many of the faith communities today have documents in place that are grounded in modern theology and that provide guidelines for their pastors and members on matters of bioethics. Such documents do in fact provide a wider vision of bioethics that includes concern for vulnerable persons and in passing, for creation. Their scope, however, is generally limited to application within faith-based institutions by which they are produced, and their foundational discussions are little known in mainstream bioethics. See for example: Catholic Health Association of Canada, *Health Ethics Guide* (Ottawa: Catholic Health Association of Canada, 2000). The Faith Worship and Ministry Committee of the Anglican Church of Canada, *Care in Dying: A Consideration of the Practices of Euthanasia and Physician-Assisted Suicide* (Toronto: The Anglican Book Centre, 1998). Catholic Health Australia, *Code of Ethical Standards for Catholic Health and Aged Services in Australia* (Australian Capital Territory: Catholic Health Australia, Inc., 2001).

Church, and indeed in other faith traditions too, it might be expected that at least some of the theologians involved would have aligned themselves with a construct like that articulated by Van Rensselaer Potter.[196] Here, I refer to the theological tradition that placed great importance on the cosmos.[197] Why did such a theological vision not override or at least counterbalance the manualist tradition's influence upon the shaping of bioethics? It is of course the case that the leading theologians, like the rest of society, were rightly interested in the immediate ethical problems of the new medicine, but I do not believe that interest to be the critical reason for their neglect of an alternative vision of bioethics. Rather, I suggest, the answer lies in the fact that while the Church through the ages did espouse a rich tradition that honored creation, the relationship between Church, theology and creation has always been ambiguous.[198]

On the one hand, Christianity with its rich Biblical heritage of awe and thanksgiving for God's creation and its centuries of theological reflection on the cosmos would seem to have a natural affinity with a wider ecological vision of bioethics. On the other hand Christianity has been charged, and validly so, with the devaluation of creation. In his now famous essay, historian, Lynn White Jr. attributed Christian disregard for nature to two aspects of Biblical interpretation.[199] First, the Scriptures separated God from nature. Christianity inherited from Judaism a creation story set in

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[196] None of the leading theologians involved in the birth of bioethics was committed to the wider, ecological vision of the discipline. Methodist and process theologian, John B. Cobb did, however, embrace such a vision and with colleagues attempted to keep it alive. See for example: Birch and Cobb, *The Liberation of Life: From the Cell to the Community.*

[197] Elizabeth Johnson, "The Cosmos: An Astonishing Image of God," *Origins* 26, no. 13 (1996): 206-12, at 07. This cosmological heritage was deeply rooted in the Judeo-Christian Scriptures, in the work of early Christian and medieval theologians, in Franciscan spirituality, and in the liturgies of the Church. It will be discussed further and in detail in chapter three of this work.

[198] H. Paul Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology* (Minneapolis: Fortress Press, 1985).

[199] Lynn White, Jr., "The Historical Roots of Our Ecological Crisis," *Science* 155 (1967). Reproduced in: Mary Heather MacKinnon and Moni McIntyre, eds., *Readings in Ecology and Feminist Theology* (Kansas City: Sheed and Ward, 1995), 25-35.

the context of linear time. Indeed, the ancient Israelites set themselves apart in this way from many of the cultures surrounding them in order to be disassociated from those which espoused nature religions with their cyclical notion of time. God was revealed in history rather than in nature. Thus, "Nature was desacralized, and God's transcendence was emphasized over God's immanence".[200] White's second point was that Scripture separates human from non-human nature. According to the writer of the first chapter of Genesis, humans are made in the image of God. Their exalted vocation is to "have dominion over" all other creatures and to "fill the earth and subdue it" (Genesis 1: 26-28).[201] Nothing in creation has any purpose beyond that of serving humans. Accordingly, White contends, "Christianity is the most anthropocentric religion the world has ever seen."[202] Such Scriptural understandings he says are at the very root of the ecological crisis of this century.

In other ways too, Christianity has reflected a negative attitude toward nature. Feminist authors and others point to the dualism inherent in Christianity which fuels devaluation of the natural world.[203] It is a dualism that finds its source in a belief in a masculine God, in turn giving rise to concepts underpinning domination of men over women and of human beings over nature through science and technology. Ian Barbour says, "Men and technology were identified with the first term in each of the polarities of reason/emotion, mind/body, objectivity/subjectivity and control/nurture." Greater value

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[200] Ian G. Barbour, *Nature, Human Nature and God* (London: SPCK, 2002), 121.
[201] In his analysis, White fails to take account of the implications of the second creation narrative found in Genesis 2, in which the writer has a very different vision of the relationship between humans and the Earth. Modern Biblical scholarship indeed, indicates that the two narratives form complementary components of the same story. Read and understood in this way quite different conclusions can be drawn, a topic to which I shall return in chapter 3 of this thesis.
[202] White, "The Historical Roots of Our Ecological Crisis," 31.
[203] Rosemary Radford Reuther, *Gaia and God: An Ecofeminist Theology of Earth Healing* (Harper Collins: San Francisco, 1992). Carol P. Christ, "Feminist Theology as Post-Traditional Theology," in *The Cambridge Companion to Feminist Theology*, ed. Susan Frank Parsons (Cambridge: Cambridge University Press, 2002), 79-96, at 86 and 88.

was attributed to the first term. Thus, "Feminists have seen the oppression of women and the oppression of nature as rooted in a common set of hierarchical, dualistic, patriarchal assumptions."[204] Such assumptions, some of which are clearly identifiable in Joseph Fletcher's pivotal contribution to the birth of bioethics, for example, "celebrated the power of modern medicine to liberate human beings from the iron grip of nature."[205]

Given such aspects of Christianity it is perhaps not surprising, therefore, that the theologians involved in the birth of bioethics would embrace the dominant conception of the discipline over the more ecological definition. What I contend, as I hope this chapter has shown, is that despite its constructive contributions to contemporary moral medicine, the standard model of bioethics is insufficient, and increasingly so in the light of present global circumstances. Such circumstances, which I will discuss in some detail in the next chapter, call for critical reflection on the shape of bioethics for the future. They are also circumstances that have prompted a similar call for deep reflection on the nature of theology.[206] In the remainder of this thesis, therefore, I intend to respond to that call in both contexts, my aim being to re-vision bioethics for the future and to reflect on a theology for engagement with it.

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[204] Barbour, *Nature, Human Nature and God*, 121. See also: Pamela Smith, *What Are They Saying About Environmental Ethics?* (Mahwah, N.J.: Paulist Press, 1997), 19-33.

[205] Callahan, "Bioethics," 249. In his *Medicine and Morals*, Fletcher reflects the dualistic tendencies of Judeo-Christian theology. He argues for an essential separation between nature and human nature and between the person from the body. Despite a caveat to his argument, (he does not accept unlimited exploitation of natural resources or of the body on the basis of a principle of "partnership" with nature first articulated by the Anglican theologian, William Temple), Fletcher, nonetheless, argues that "physical nature is what is over against us out there" and that submission to nature is ultimately a failure in moral responsibility. Fletcher, *Morals and Medicine. The Moral Problems Of: The Patient's Right to Know the Truth, Contraception, Artificial Insemination, Sterilization, and Euthanasia*, 211-25.

[206] Barbour, *Nature, Human Nature and God*, 122. See also: Dutney, "Bioethics, Ecology, and Theology." Johnson, "The Cosmos: An Astonishing Image of God."

CHAPTER TWO

TOWARD A RENEWAL OF BIOETHICS: SOME BEGINNINGS

What we must now face up to is the fact that human ethics cannot be separated from a realistic understanding of ecology in the broadest sense. **Van Rensellaer Potter**: **Bioethics: A Bridge to the Future**

In Chapter 1, I have argued that present global circumstances challenge the standard model of bioethics, a model dominated by Western medicine, individualism and abstract principle. I will go on to suggest that, in particular, current global circumstances illuminate the inadequacy of standard bioethics to help communities "develop the moral perspectives" needed to address the complexities of health care in society today.[1] What is required is a renewal of our conceptions of bioethics to better encompass and address that complexity. To begin to advance this position, the second chapter will include: (1) A description of key global circumstances, which it may be argued challenge the dominant paradigm of bioethics; (2) a critique of the standard paradigm of bioethics in the light of such global circumstances; (3) a related proposal for a renewal of bioethics; and (4) the beginnings of a proposal for the development of an ecological model of bioethics.

The global circumstances that in my view challenge current conceptions of bioethics are essentially environmental circumstances. They are the circumstances of a widespread ecological crisis that in turn is largely attributable to patterns of greed, domination and exploitation.[2] Such patterns, primarily characteristic of a current

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[1] Daniel Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics," *Perspectives in Biology and Medicine* 46, no. 4 (2003): 500.

[2] By "crisis", a word that is somewhat contentious, I here refer to the accumulative evidence of serious environmental degradation including, climate change, ozone depletion, the destruction of forests, the undermining of soil fertility, air and water contamination, and species extinction. I claim too that such factors are inseparable from certain social structures and issues. Collectively these environmental and social factors threaten earth's life support systems and thus the wellbeing, health and existence of humans. See: The Worldwatch Institute, "Vital Signs: An

"Western worldview", with its emphasis on productivity and certain conceptions of globalization, threaten the health and life of all parts of the earth community.[3] There is a clear and present danger in the further destruction of the earth and in the threat to its viability – the foundation upon which human wellbeing, health and existence depend.[4] How then can bioethics, concerned as it is with moral issues in health care, continue to omit from its primary definition, substantive content and functions, the conditions of the earth and questions pertaining to the natural environment? In this chapter, I will argue that it cannot, even at the level of clinical care. Firstly, however, a description of key global circumstances that I suggest call for a renewal of bioethics will be provided.

A Global Ecological Crisis

Today we are facing an unprecedented and accelerating ecological crisis. Since the 1950s there has been increasing evidence of a weakening of the world's life support systems and processes threatening human health and, more fundamentally, the survival of the biosphere itself. "Today, the aggregate of the human population size and economic activity on various of the world's biophysical systems has begun to exceed the regenerative and repair capacities of those systems. Such overload has never before

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Annual Report on the Trends That Are Shaping Our Future," (New York and London: 1992-2003). The Worldwatch Institute, "State of the World Reports," (New York and London: 1984-2005).

[3] The term "globalization" has various meanings. According to Eaton and Lorentzen the word can mean: "(1) An *economic agenda* that traverses the world, promoting market economies and enhancing trade in the service of capital growth; (2) An *ideology* representing values, cultural norms, and practices, seen by some as a superior worldview and by others as cultural hegemony; (3) A *corporate structure and mechanism* that may supersede the rule of nation-states and challenge or even threaten democracy; (4) A *global village*, the consequence of vast cultural exchanges, communication technologies, transportation, migrations, and a wide array of global interconnections, including the globalization of ideas; or (5) A *grassroots globalization* as witnessed in 'anti-globalization' or pro-democracy movements emerging in resistance to economic and cultural globalization." However, the term generally refers to: "the economic and technological agenda that alters basic modes of cultural organization and international exchange in many parts of the world." It is to this latter and common meaning that I refer in this chapter. See: Heather Eaton and Lois Ann Lorentzen, "Introduction," in *Ecofeminism and Globalization: Exploring Culture, Context, and Religion*, ed. Heather Eaton and Lois Ann Lorentzen (Lanham, MD: Roman and Littlefield Publishers, Inc., 2003), 1-7, at 4.

[4] Heather Eaton, "A Critical Inquiry into an Ecofeminist Cosmology" (Ph.D. Thesis, University of St. Michael's College, Toronto, 1996).

occurred globally: this is an historical first."[5] There are numerous features that illustrate the situation and although I cannot do justice to them all in a thesis of this length, I will attempt to illustrate here some key concerns that speak to a need for a re-evaluation of our concepts of health and constructs of health care, and thus, as I see it our understandings of bioethics and of the perspectives and disciplines that inform it.

Key Features of Global Environmental Crisis

During the 1990s, strong signs of human-induced global climate change became a potent warning of dangerous, widespread environmental disturbance.[6] In 2002, the last year for which comprehensive records are available, global average temperatures climbed to 14.52 degrees Celsius making it the second hottest year since record-keeping began in the late 1800s. Moreover, the nine warmest years on record have all occurred since 1990.[7] Scientists have linked such trends in climatic change to the buildup of carbon dioxide and other heat-trapping gases. It is a buildup largely attributable to the unrestrained burning of fossil fuels, coal, oil and natural gas, consumption of which continues to rise.[8] The industrial nations contribute the bulk of such carbon emissions through their burning of fossil fuels. The United States alone, for example, with less than 5 percent of the global population, uses a quarter of the world's fossil fuel resources – consuming 25 percent of the world's coal, 26 percent of its oil and

[5] Anthony J. McMichael and Pim Martens, "Global Environmental Changes: Anticipating and Assessing Risks to Health," in *Environmental Change, Climate and Health: Issues and Research Methods*, ed. Anthony J. McMichael and Pim Martens (Cambridge: Cambridge University Press, 2002), 3.
[6] Ibid.
[7] Michael Renner and Molly O. Sheehan, "Poverty and Inequality Block Progress," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. L. Starke (New York and London: W.W. Norton & Company, 2003), 17-24, at 21.
[8] John Theodore Houghton, ed., *Climate Change 2001: The Scientific Basis, Contribution of Working Group 1 to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2001).

27 percent of its natural gas.[9] In 2002, fossil fuel consumption worldwide was recorded as 4.7 times the level in 1950, and it accounted for 77 percent of global energy use.[10] The driving forces behind such increasing energy consumption are various and they demonstrate the essential interconnectedness of ideological, social and environmental factors culminating in the present day crisis. They include technological advances, new commercial structures, and powerful developments in communications media, all set in a context of globalization and an escalating consumerist ethos. The aggregate of these factors has sent production and demand to record levels. "In the process, they have created an economic system of unprecedented bounty and unparalleled environmental and social impact."[11] Thus, while many people in the wealthier nations enjoy the economic and social benefits of increasing production, the result of a process of globalization commonly fueled by cheap labor, it is largely the peoples of the poorer countries who bear the brunt of related environmental destruction and its concomitant social decline.[12]

Linked closely to increasing global temperatures are escalating severe weather events that have already claimed the lives of thousands of people, injuring many more and displacing millions. As greenhouse gases trap more of the sun's heat in the Earth's atmosphere, greater energy is present in the climate cycle resulting in extreme swings in

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[9] Gary Gardner, Erik Assadourian, and Radhika Sarin, "The State of Consumption Today," in *State of the World Report*, ed. Linda Starke (New York and London: W. W. Norton & Company, 2004), 3-21, at 11.

[10] Data calculated from the Lawrence Berkley Laboratory, U.S. Department of Energy, Energy Information Administration, International Gas Union, International Energy Agency and British Petroleum in communications to the Worldwatch Institute, cited in: Janet Sawin, "Fossil Fuel Use Up," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 34-35, at 34.

[11] Gardner, Assadourian, and Sarin, "The State of Consumption Today," 11.

[12] See for example: Mathis Wackernagel and William Rees, *Our Ecological Footprint: Reducing Human Impact on the Earth* (Gabriola Island, B.C. and Stony Creek, CT.: New Society Publishers, 1996), 1-6.

weather patterns. Serious increases in storms, droughts and floods are predicted.[13] Such severe weather events damage the infrastructure of the countries in which they occur including hospitals, schools and roads. Agricultural yield is decimated, and livestock killed.[14] An additional contributing factor to these tragedies is deforestation for financial gain, which in turn contributes to a warming climate, to more extreme weather and to further loss of forests from natural disturbance. A vicious cycle of environmental destruction and social distress is set in motion.[15] In Africa, while other factors such as political turmoil, wars and AIDS play an important role, weather-related disaster is the primary cause of famine for an estimated 18 million people.[16]

Of great concern are scientific predictions that during the twenty-first century average global temperatures will continue to rise at rates unprecedented during the past 10,000 years.[17] A warming world also means rising sea levels from the melting of continental ice masses and the expansion of oceans, putting at serious risk, the very

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[13] Danielle Nierenberg and Brian Halweil, "Cultivating Food Security," in *State of the World 2005: Redefining Global Security - a Worldwatch Institute Report on Progress toward a Sustainable Society*, ed. Linda Starke (New York/London: W.W. Norton & Company, 2005), 62-77 at 72 and 73.

[14] Ibid., 62-77.

[15] The recent Asian tsunami is a case in point. It has been cogently argued that the impact of the disaster was enormously magnified due to deforestation, in particular, to destruction of mangroves for the building of coastal resorts and for the development of shrimp ponds for the provision of Western markets. Currently, worries are being expressed about further deforestation occurring for the repair of buildings and bridges destroyed by the tsunami. See: Maria Kruse, *Forest Fires, Tsunami, Deforestation and Millenium Goals* (Food and Agriculture Organization of the United Nations, March 15, 2005 [cited March 23, 2005); available from http://www.fao.org/newsroom/en/news/2005/100228/index.html. It should be noted here, however, that observations of the kind made above are commonly retrospective observations. To what extent prediction of disaster is possible, given current cumulative data, remains an open question and sometimes contentious point of argument. Moreover, in the face of extreme poverty in some regions of the world and rampant consumerism in others, there are immense problems in carrying out just, balanced or honest assessments of what constitutes appropriate development, industrialization and trade in our day.

[16] Janet Sawin, "Severe Weather Events on the Rise," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 92.

[17] Houghton, ed., *Climate Change 2001: The Scientific Basis, Contribution of Working Group 1 to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, 13.

existence of some small islands and parts of certain countries. It is estimated, for example, that by 2050 up to 18 percent of Bangladesh, a country already devastated by frequent, severe flooding, could be under water.[18] Islands under profound threat include the Marshall Islands, Tuvalu and Kiribati in the South Pacific.[19]

Added to these problems, the depletion of stratospheric ozone levels due to the release of human-made industrial gases such as chlorofluorocarbons (CFCs) has been clearly documented during recent decades. It is estimated that terrestrial levels of ultraviolet radiation have increased by 5-10 percent since 1980.[20] Such increased levels of radiation pose a serious threat to ecological and human health. Significantly, "These changes in the lower and middle atmospheres", McMichael and Martens point out, "provide the most unambiguous signal yet that the enormous aggregate impact of humankind has begun to overload the biosphere. The capacity of the atmosphere to act as a 'sink' for our gaseous wastes has been manifestly exceeded."[21]

Air pollution continues to increase worldwide. Major cities across the globe are affected and the problem is growing in the rapidly expanding industrial cities of the developing world. Global industrial intensification, debt-driven industrial practices, the massive rise in private car ownership and the lack of political or corporate will to address the issues adequately, contribute substantially to the problem.[22]

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[18] Celia Deane-Drummond, *A Handbook in Theology and Ecology* (London: SCM Press Ltd., 1996), 11.
[19] David Taylor, "Small Islands Threatened by Sea Level Rise," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 84-85.
[20] McMichael and Martens, "Global Environmental Changes: Anticipating and Assessing Risks to Health," 3.
[21] Ibid.
[22] Ibid., 8. Reluctance by some governments, including the United States, to endorse the Kyoto Protocol, the aim of which is to place binding limitations on the emission of greenhouse gases for developed nations, is a case in point.

Intensive agricultural practices have undermined soil fertility; 65 percent of once arable land has been lost and a further 15 percent of land surface is becoming desert.[23] The use of chemical fertilizers for short-term gain has been shown to decrease soil fertility in the longer term. As well, such fertilizers are major pollutants. They are absorbed into all parts of the ecosystem and food chain. Runoff of chemicals and fertilizers into streams and aquifers contaminate drinking water and eutrophy coastal waters, lakes and ponds.[24] Nitrogen loading from the use of fertilizer is now beginning to sterilize large expanses of coastal water such as Chesapeake Bay in Maryland, the Baltic Sea and the Gulf of Mexico.[25] Waterways are also being depleted of their fish stocks as a result of over-fishing by large industrial operations.[26]

Water itself is becoming a rare commodity in many parts of the world, due to climate change, intensive irrigation demands, rapid urbanization, industrialization and pollution. It is estimated that given population growth, nearly 3 billion people – 40 percent of the projected global population – will live in "water stressed countries" by 2015.[27] Just six countries – Brazil, Canada, China, Colombia, Indonesia and Russia – account for half of the world's renewable freshwater supply, largely due to natural endowment. Water-poor countries include, especially, Israel, Jordan and Kuwait - areas that often make greater demand on rivers and aquifers than those that are water-rich,

[23] Mark Hathaway, "Renewing the Sacred Balance: A Challenge and an Opportunity," *Scarboro Missions* (April, 2004): 4-7, at 5.
[24] Sandra Postel and Amy Vickers, "Boosting Water Production," in *State of the World Report*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2004), 46-65, at 60. It is of note that in the United States more fertilizer is used for manicured lawns, golf courses, and turf-covered corporate, government and roadside areas, than is used for agricultural purposes. Postel and Vickers in the above reference, point out for example, that homeowners, in the United States, use 10 times more pesticides on their lawns than farmers use on crops.
[25] McMichael and Martens, "Global Environmental Changes: Anticipating and Assessing Risks to Health," 4.
[26] Ibid.
[27] Michael Renner, "Security Redefined," in *State of the World 2005: Redefining Global Security - a Worldwatch Institute Report on Progress toward Sustainable Society*, ed. Linda Starke (New York/London: W.W. Norton & Company, 2005), 3-19, at 6.

because of needs for crop irrigation in their naturally dry climates. Other countries are so-called "water-gluttons". The United States, for example, is one of the highest per capita water users in the world even though only 11 percent of its cropland is irrigated. Its demands for lush green landscapes, golf courses and backyard swimming pools, even in its oasis cities, radically depletes it aquifers and defies its natural water resources.[28]

Combined climate change, pollution, intensive agricultural and fishing practices, soil and water depletion have already contributed to extensive hunger worldwide. During the second half of the 1990s the number of hungry people in developing countries increased by 18 percent. Today, some 800 million people suffer from hunger and chronic nutritional deficiencies. Food shortage exacerbated by environmental conditions will inevitably increase in the future.[29] Demand by wealthy consumers worldwide for luxury foods adds to the already great nutritional burdens of the poor, sometimes displacing them from their lands where formerly they have been able to eke out a living growing native staples.[30] By way of response, some argue that future food shortages can be offset through genetic modification of crops for improved resistance to disease and increased yield. There is to date, however, no adequate information with respect to potential long-term productivity of such crops. Also, those who advocate sustainable agriculture are concerned that genetic modification may destroy native and wild populations of corn, rice, wheat, and other food sources. Moreover, the risks associated with the genetic modification of crops are unknown. Such risks include possible severe

[28] Postel and Vickers, "Boosting Water Production," 49-50.
[29] Nierenberg and Halweil, "Cultivating Food Security," 63, 73.
[30] Brian Halweil and Danielle Nierenberg, "Watching What We Eat," in *State of the World Report*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2004), 68-85. Much of the displacement of peasant farmers in poorer countries, for example, is related to the allocation of land for export crops, such as coffee, tropical produce and exotic flowers, in response to demands by Western consumers.

allergic reactions and genetic recombination resulting in the creation of virulent new viruses. A crucial problem is that if genetic engineering goes wrong there is no way to reverse the process.[31] Further, the expressed concern for the provision of food for the poor in developing countries by means of genetic modification may simply mask a primary intent of global corporations for "rapid production for rapid consumption" by the rich of other nations.[32]

As the demand for land, food, and raw materials increases throughout the world, species extinction is accelerating at an alarming rate.[33] Biodiversity is threatened by the irreversible loss of wilderness on all continents. A recent analysis by respected international scientists found that more than one-third of the 1,103 species they studied could become extinct or reach near extinction levels by 2050 as climatic instability converts fertile lands into desert and as more forests are destroyed.[34] As well, the accidental or intentional introduction of non-native species, something that is especially prevalent due to current high levels of global mobility and trade, can result in severe disruption of local bioregions. Natural predators may be displaced, species introduced with no local predators, or competing species may be inserted into a region. As a result, plant and animal diseases may be introduced.[35] Intensive farming practices that depend on inbreeding to develop single crop species (monocultures) for high yield result in

[31] Nierenberg and Halweil, "Cultivating Food Security," 70-71.
[32] Teresa Brennan, *Globalization and Its Terrors* (London: Routledge, 2003), 70.
[33] Paul Hawken, *The Ecology of Commerce: A Declaration of Sustainability* (New York: Harper Collins, 1993), 19-33.
[34] Chris D. Thomas et al., "Extinction Risk from Climate Change," *Nature* 427 (2004): 145-48.
[35] Charles J. Puccia, "The Earth at Risk: Encountering Environmental Limits," in *Earth at Risk: An Environmental Dialogue between Religion and Science*, ed. Donald B. Conroy and Rodney L. Peterson (Amherst, N.Y.: Humanity Books, 2000), 67-88. See also: Zoe Chafe, "Bioinvasions," in *State of the World 2005: Redefining Global Security - a Worldwatch Institute Report on Progress toward a Sustainable Society*, ed. Lisa Starke (New York/London: W.W. Norton & Company, 2005), 60-61.

critical loss of genetic material.[36] This presents a problem that according to McMichael and Martens is not "simply the loss of valued items from nature's catalogue. It is more seriously the destabilization and weakening of whole ecosystems and the consequent loss of their products and their recycling, cleansing and restorative services."[37]

However serious the environmental destabilization and destruction outlined above is though, it forms only one part of the story. For as we plunder the Earth's resources and destroy its integrity and health, so we also plunder the security, health and wellbeing of many peoples throughout the world.

Social and Personal Costs of the Environmental Crisis

Environmental degradation brings in its wake serious social and health consequences. They come in the form of increased disparities (alluded to above), between rich and poor, violence, dispossession, famine and disease, to name but a few. Depletion of natural resources through corporate greed and consumer demand and privilege, cloaked in an ideology of globalization, has served to fuel social inequities and intense violence. For some, the economic opportunities of unbridled industrialization and global trade have been unparalleled. For others, those same circumstances have caused profound poverty and suffering. For the poor the world over, they have commonly translated into "under-funded social programs, crushing debt burdens, greater exposure to armed conflict and human rights violations and heightened susceptibility to natural disasters."[38] Violence in the face of resource shortages and food scarcity is

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[36] Deane-Drummond, *A Handbook in Theology and Ecology*, 3-5.
[37] McMichael and Martens, "Global Environmental Changes: Anticipating and Assessing Risks to Health," 3.
[38] Renner and Sheehan, "Poverty and Inequality Block Progress," 18. While it is clear that some groups in developing countries benefit from global development and industrialization, such is not a typical pattern. Even where wages have improved for people in developing countries, through the outsourcing of industry from richer nations, for example, it has not brought about fair working

becoming an international concern of considerable magnitude. A depletion of renewable resources has already, in part, spawned conflict in some countries including Brazil, Côte d'Ivoire, Haiti, Mexico, Nigeria, Pakistan, the Philippines, and Rwanda.[39] At a conservative estimate, 5 million people were killed in resource-related conflict during the 1990s alone.[40] Increasingly, the casualties of these conflicts are women and children.[41] Moreover, it is argued that aggression of this kind is but a foreshadowing of much more to come.[42] The lucrative arms trade too bolsters such activities.[43] Dependant militarization is consistently connected to human rights abuses and to violence against women and children. It decimates social infrastructure with serious implications for many of "the world's unmet needs for health care, education and environmental preservation."[44] Moreover, wars and the corruption that accompanies them are directly destructive of ecological integrity.[45]

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conditions for those in poorer countries. Meanwhile, in the currently more affluent nations, such tactics have led to loss of employment and benefits for many, creating rising levels of poverty for numerous families.

[39] See for example: Somini Sengupta, "Land Quarrels Unsettle Ivory Coast's Cocoa Belt," *New York Times*, May 26, 2004. Ed Stoddard, "African Conflict Is Seen as Rooted in Environment," *Reuters*, October 5, 2004. Both cited without section or page references in: Renner, "Security Redefined," 6. See also: Thomas Homer-Dixon and Jessica Blitt, *Ecoviolence: Links among Environment, Population, and Security* (New York: Rowman & Littlefield, 1998).

[40] Michael Renner, "Resource Wars Plague Developing World," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 120-21, at 20.

[41] The violence against women and children trapped in resource conflicts includes murder, physical assault, rape and the destruction of their homes.

[42] It is projected that water shortages, in particular, are likely to be a major cause of social unrest, power-mongering or violence during the next decade. See: Peter Gleick, *The World's Water: The Biennial Report on Freshwater Resources 2000-2001* (Washington D.C.: Island Press, 2000). See also: Lisa Mastny and Richard P. Cincotta, "Examining the Connections between Population and Security," in *State of the World 2005: Redefining Global Security - a Worldwatch Institute Report on Progress toward a Sustainable Society*, ed. Lisa Starke (New York/London: W.W. Norton & Company, 2005), 22-39, at 31-34.

[43] Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 7.

[44] Michael Renner, "Military Expenditures on the Rise," in *Vital Signs: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 118-19, at 19.

[45] Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 7.

Another serious social impact of climatic instability, environmental degradation and violence is the dispossession of millions of people globally. At the beginning of 2003, the United Nations High Commission for Refugees (UNHCR) defined 10,389,600 people as refugees.[46] Additionally the Commission estimates that 20-25 million people, of whom only 5.8 million receive UNHCR aid, are internally displaced in the wake of armed conflict or persecution.[47] Many more are "environmental refugees", forced to flee homes because of the negative effects of large development projects such as the construction of dams and roads or water diversions, or due to natural disasters, most attributable to the effects of deforestation and global climate change.[48] It is currently estimated that there are 30 million environmental refugees worldwide, and predicted that by the year 2050 the number could increase to 150 million.[49] Patterns of migration of this kind have numerous consequences, including famine, widespread infection, violence against individuals, stress on or failure of national social resources worldwide, and increasing pressure on already fragile ecologies.

Significantly, the consumption patterns of the wealthier nations contribute greatly to all of these problems. Rich nations presently consume approximately 75 percent of

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[46] The United Nations defines a refugee as a person who "owing to well-found fear of being persecuted for reasons of race, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and owing to such fear, is unwilling to avail himself of the protection of that country." United Nations 1951 Convention relating to the Status of Refugees, as amended by the 1967 Protocol Relating to the Status of Refugees cited in: Arunima Dhar, "Number of Refugees Drops," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 102-03, at 02.

[47] United Nations High Commissioner for Refugees, *Refugees by Numbers* (UNHCR, September 2003 [cited Dec 16, 2003); available from www.unhcr.ch/cgi-bin/texis/vtx/basics.

[48] Dhar, "Number of Refugees Drops," 102-03. While the title of this reference infers improvement in the refugee situation, it is only the numbers of those officially classified as refugees, that is, persons outside of their own countries that have declined. The figures for other groups of displaced persons show a troubling and dramatic increase.

[49] Rhoda Margesson, "Environmental Refugees," in *State of the World 2005: Redefining Global Security - a Worldwatch Institute Report on Progress toward a Sustainable Society*, ed. Lisa Starke (New York/London: W.W. Norton & Company, 2005), 40-41.

the world's resources while producing 75 percent of global solid and toxic waste.[50] While the world's poor in all countries eke out a meager survival at best, in the economically privileged nations most have replaced a notion of need with an ethos of want and entitlement. The result is an unprecedented degradation of nature and of other human beings. The excessive desires and wants of the few are met by the diminution and entrapment of the many. Economic policy, certain international organizations and commercial companies serve to maintain the status quo, decimating the environment, favoring the rich, and placing the unbearable burdens of structural adjustment and trade agreements on the shoulders of the poor.[51]

While it is clear from the preceding discussion that the burdens of the global environmental crisis are largely carried by the poorer nations, this is not the full story either. For the impact of the environmental crisis is indeed global. In the richer nations as well, the effects of ecological destruction, a growing disparity between rich and poor, and the excesses of consumerism are being felt by many. In such countries, environmental protection is not a priority in the light of the short-term promise of international trade and economic prosperity. The use and abuse of fossil fuels continues to rise, carbon dioxide levels climb, natural habitat and agricultural lands are being destroyed for more and more urban, and often extravagant development, and inefficient and destructive energy production is subsidized by government. Little connection, if any, is made between

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[50] Larry L. Rasmussen, *Earth Community, Earth Ethics* (Maryknoll, New York: Orbis Books, 1996), 39.

[51] Brennan, *Globalization and Its Terrors*, xvii. In particular, institutions such as the World Trade Organization, the International Monetary Fund, and the World Bank are criticized for policies that favor the richer countries and their transnational corporations under the guise of support for developing countries. In the meantime the poor of those developing countries suffer much from the structural adjustments and trade agreements that allow corporations to strip natural resources and disrupt local markets. See: Rasmussen, *Earth Community, Earth Ethics*, 79-83 and 122-25. I am not here suggesting that all trade is 'bad', however, or that it fails at all times to help and enable people within developing countries. For a discussion of this point see: Wackernagel and Rees, *Our Ecological Footprint: Reducing Human Impact on the Earth*, 20.

economic policy and the environment.[52] The impacts for human health and wellbeing are experienced worldwide.

Environmental Destruction, International Policy and Human Health

In the light of the above facts, among many others, urgent concerns about human health and wellbeing arise. A recent report published by Health Canada identifies, for example, some broad categories of concern that are applicable across the globe. They include health effects resulting from increased smog and air pollution, illness and death caused by extreme episodes of heat and cold, water and food contamination, the depletion of stratospheric ozone, and extreme weather events.[53] Examples of health vulnerabilities in the context of these categories abound.

Air pollution is associated with a substantial increase in the incidence of asthma and other respiratory diseases across the world, in rich and poor countries alike. By 1999, an estimated 1.4 billion residents of urban areas (a quarter of the global population) were breathing air containing greater pollution than considered safe by the World Health Organization. Asthma deaths of people between the ages of five and thirty-five increased more than 40% between the mid-1970s, and mid-1980s, particularly in urban regions across the world. The subsequent decade saw a 50 percent increase in asthma generally.[54] A wide range of allergic reactions, heart attack, stroke, and cancer have also been linked to high levels of air pollution.[55]

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[52] Dorothy C. McDougal, "The Cosmos as Primary Sacrament: The Horizon for an Ecological Sacramental Theology" (D. Min. Dissertation, University of St. Michael's College, Toronto, 1999), 20.
[53] Health Canada, *Canada's Health Concerns from Climate Change and Variability* (July 28 2003 [cited December 12, 2003); available from www.hc-sc.gc/hecs-sesc/ccho/health.
[54] Brennan, *Globalization and Its Terrors*, 35.
[55] Richard Wilson and John D. Spengler, *Particles in Our Air: Concentration and Health Effects* (Boston: Harvard University Press, 1996).

Temperature-related morbidity and mortality include death from hypo/hyperthermia, the escalation of respiratory and cardiovascular diseases, and increased occupational health risks.[56] As climate change occurs there has also been a marked increase in gastro-intestinal illnesses and changing patterns of infectious diseases more generally.[57] Cholera bacteria thrive in the world's warming ocean waters, a factor contributing to recent major epidemics.[58] Of special concern are those illnesses transmitted by mosquitoes, ticks and other vectors that thrive in the warming climates of the world. For example, in the African highlands, under hotter conditions, malaria-carrying mosquitoes have extended their range infecting ever larger numbers of people.[59] In New York City, during the summer of 1999 the first case of West Nile Fever in the Western hemisphere occurred.[60] In 2002, the West Nile virus killed 241 people in the United States. In that same year, in a remote part of southern China, a new disease, SARS (severe acute respiratory syndrome) jumped from animals to humans. It rapidly spread across China and in the space of a few weeks the disease spread with travelers across Asia and then on to many other countries throughout the world. Now great fears are expressed that Avian flu, another animal virus, will spread rapidly among humans. In 2004, the disease swept through eight Asian countries killing more than two dozen people and resulting in the culling of more than 100 million fowl. In September 2004, the

[56]Health Canada, *Canada's Health Concerns from Climate Change and Variability*

[57] See for example: William Checkley et al., "Effects of El Nino and Ambient Temperatures on the Hospital Admissions for Diarrhoeal Diseases in Peruvian Children," *The Lancet* 355, no. 9209 (2000): 442-50. Rita R Colwell, "Global Climate and Infectious Disease: The Cholera Paradigm," *Science* 274 (1996): 2025-31. See also: Dennis Pirages, "Containing Infectious Disease," in *State of the World 2005: Redefining Global Security - a Worldwatch Institute Report on Progress toward a Sustainable Society*, ed. Lisa Starke (New York/London: W.W. Norton & Company, 2005).

[58] Within recent years, for example, major epidemics of cholera have been recorded in Dijibouti, Somalia, Tanzania and Mozambique. See: James J. McCarthy, *Climate Change 2001: Impacts, Adaptation, and Vulnerability. Contribution of Working Group 11 to the Third Assessment Report of the Ippc* (Cambridge: Cambridge University Press, 2001), Chapter 10.

[59] Ibid.

[60] Kenny Ausubel, *The Coming Age of Ecological Medicine* (Alternet, May 25, 2001 [cited October 10, 2003]); available from www.alternet.org.

WHO reported the first possible human-to-human transmission of the virus when a woman in Thailand died.[61]

Depletion of stratospheric ozone results in greater exposure to ultraviolet light causing an increase in skin cancer and disturbances of immune function.[62] Skin cancer, in particular, has been seen to rise exponentially during recent years. According to the American Academy of Dermatology nearly half of all new cancers are skin cancers. The Academy predicts more than 1 million new cases a year will occur in the United States alone and estimates 9,800 annual deaths from the disease in that country.[63]

Extreme weather events have resulted in a huge death toll in many parts of the world, and they have caused severe injury, disability and social and mental stress for an incalculable number of people. The poverty brought about as a result of disregard for the environment and prejudicial trade policies exacerbate complex health problems. Degradation of land and agricultural strategies that benefit the world's affluent result in famine and malnutrition for millions of the world's poor. Malnutrition in turn creates greater vulnerability to disease, especially infectious diseases.[64] Those who can no longer survive in rural areas of the world due to loss of fertile land and displacement flee to urban centers in which the infrastructure is inadequate to support the rising

[61] Pirages, "Containing Infectious Disease," 45-48.
[62] The United Nations Environment Programme, *Environmental Effects of Ozone Depletion: Interim Summary August 2000* (UNEP, February, 8, 2004 [cited June 8, 2004]); available from www.gcio.org/ozone/unep2000summary.
[63] The American Academy of Dermatology, *2003 Skin Cancer Fact Sheet* (2003 [cited January 21, 2004]); available from www.aad.org/SkinCancerNews.
[64] Vitamin A deficiency, for example, causes not only blindness, (some 200,000 children annually become blind as a result of this deficiency) but also due to its effects on the epithelial tissues of the body more generally, leaves such children vulnerable to the secondary effects of severe gastro-intestinal and respiratory infections. Many such children die each year from a deficiency that is largely preventable by cheap, initial vitamin supplementation and longer-term projects that ensure the provision of orange and yellow fruits and vegetables, sources of beta-carotene. See: John Sandford-Smith, *Eye Diseases in Hot Climates*, 2 ed. (London: John Wright and Sons Ltd, 1990), 110-26.

population. Infectious diseases are rife in centers which commonly lack clean water and sanitation and where overcrowding and homelessness is prevalent. In such areas few have money for nutritious food or medicine. Education for the children is lacking and many children are orphaned. Some are required to beg in order to support their families.[65] AIDS is endemic in many such areas, a disease that disproportionately kills poor and uneducated people who do not have the resources for prevention or symptom-treatment with new drugs. Indeed, increasing economic inequities have escalated the spread of AIDS.[66] In 2003, nearly 3 million people died from HIV-related infections, bringing the death toll from AIDS to more than 20 million since the first cases were identified in 1981.[67] Nearly 90 percent of deaths associated with AIDS occur among people of working age and most of those in developing countries. As Lisa Mastny and Richard Cincotta point out, "the global spread of HIV/AIDS threatens to create a lethally imbalanced age structure – but in a way never before seen in history".[68]

Migration for political, religious or environmental reasons breaks up the family and social networks that sustain healthy communities and individuals. Disease, psychological trauma, physical aggression and rape dominate many of the refugee camps to which people flee for supposed safety.[69] Global migration adds enormous stress to economic, health and educational services and to environmental integrity in receiving countries.

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[65] From personal observations while working in developing countries, the need for children to beg creates a vicious cycle. It means that another generation is deprived of education (even where it is available), and thus, the later ability to find productive work. In turn this has health impacts influenced by poverty. Moreover, some children required to beg are drawn into prostitution with its personal and social scars, leaving them especially vulnerable to sexually-transmitted diseases, including AIDS.
[66] Renner and Sheehan, "Poverty and Inequality Block Progress," 19.
[67] UNAIDS, "Report on the Global Aids Epidemic," (Geneva: 2004). Cited in: Mastny and Cincotta, "Examining the Connections between Population and Security," 27.
[68] Mastny and Cincotta, "Examining the Connections between Population and Security," 27.
[69] Dhar, "Number of Refugees Drops," 103.

Moreover, as indicated above, it is not only in poorer countries that environmental degradation and its social causes and effects impact health. In wealthier nations, severe weather events, air and water pollution also take their toll on health. In the most part, however, the diseases of the richer countries are those that are characteristic of a generally affluent, consumerist society. People in these countries suffer primarily from diseases related to dietary and lifestyle behaviors.[70] Hypertension, high levels of cholesterol, obesity and a diet lacking in fruits and vegetables accounted for up to 7.6 million deaths in the year 2000 by increasing the risk for certain diseases including stroke, heart disease, cancer and diabetes.[71] Stress and emotional disruption are also features of the new world of globalization, technology dependence, related social dissociation, and environmental disruption. In industrialized countries, says Teresa Brennan, "we are a people that go without enough sleep, rest, proper food – taking prescribed drugs to silence chronic illness and escalating allergies."[72]

Significantly, as the effects of globalization increase there is a gradual merging of health problems that formerly separated the rich and poor nations. In some developing countries, for example, many skilled and educated people have seen a rise in income and services due to an increased availability of work and trade in the wake of globalization. This does not necessarily translate into better health, however. Rather, it tends to translate into a transition in disease patterns.[73] Now the better paid in the developing countries are beginning to succumb to the illnesses formerly associated with the privileged in wealthier countries, the disorders of over-consumption, stress and

[70] World Health Organization (WHO), "The World Health Report 2001," (Geneva: WHO, 2001), 86.
[71] Ibid., 226.
[72] Brennan, *Globalization and Its Terrors*, 22.
[73] Erik Assadourian, "Consumption Patterns Contribute to Mortality," in *Vital Signs 2003*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 108-09, at 09.

addiction. It is estimated, for example, that in developing countries the diseases of over-consumption now account for up to 27 percent of mortality.[74]

By contrast, in wealthier nations including Britain, Japan, New Zealand and the United States, the gap between rich and poor, with its health consequences, has grown considerably since the 1980s.[75] This correlates with unemployment, loss of union support, the liberalization of trade forcing competition in local markets, and economic restructuring. Agricultural policies, trade agreements and increasing urban and suburban sprawl that reduce farm land have limited the availability of affordable, healthy foods. Amongst the poor in the industrial countries nutritional-deficiency illnesses and corresponding vulnerability to infectious diseases are now being identified. A rise in low birth weight rates, in some areas comparable to those in developing countries, is also being seen in certain poorer communities within industrialized nations.[76] The incidence of respiratory diseases, especially childhood asthma, has increased markedly in the industrialized nations.[77] Specifically, the rise in childhood asthma in such areas has been associated with escalating family poverty influenced by loss of employment and altered family and housing dynamics.[78]

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[74] (WHO), "The World Health Report 2001," 86.

[75] Radhika Sarin, "Rich-Poor Divide Growing," in *Vital Signs 2003: The Trends That Are Shaping Our Future*, ed. Linda Starke (New York and London: W.W. Norton & Company, 2003), 88-89, at 88.

[76] See for example: Health Canada, *Nutrition for Health: An Agenda for Action* (The Office of Nutrition Policy and Promotion, 1996 [cited June 2004]); available from www.hc-cs.gc./hpfb-dgpsa/onpp-bppn/nutrition_health__agenda-e.html#1.

[77] Floyd J. Malveaux and Sheryl A. Flethcer-Vincent, "Environmental Risk Factors and Childhood Asthma in Urban Centers," *Environmental Health Perspectives* 103, no. Suppl. 6 (1995): 59-62. See also: Jane Q. Koenig, "Air Pollution and Asthma," *Journal of Allergy and Clinical Immunology* 104 (1999): 717-22.

[78] Neal Halfon and Paul W. Newacheck, "Childhood Asthma and Poverty: Differential Impacts and Utilization of Health Services," *Pediatrics* 91, no. 1 (1993): 56-61. See also: Enric Duran-Tauleria and Roberto J. Rona, "Geographical and Socioeconomic Variations in the Prevalence of Asthma Symptoms in English and Scottish Children," *Thorax* 54 (1999): 476-81. Luz Claudio et al., "Socioeconomic Factors and Asthma Hospitalization Rates in New York City," *Asthma* 36, no. 4 (1999): 343-50. It should be pointed out, however, that some studies are less clear on the relationship between poverty and childhood asthma. See for example: Lara Akinbami, Bonnie J.

Thus, overall, the context within which health problems are associated with environmental decline and social factors is a complex and concerning one.[79] Nonetheless, it is precisely such facts rooted in the cyclical entanglement of technological and socio-economic trends, environmental degradation and human health, that I maintain illuminate the inadequacy of present constructs of bioethics. To explore this contention further, and to examine why and how such global facts challenge the current paradigm of bioethics, I will go on to provide a case for consideration that I believe may help illustrate the point.[80]

La Fleur, and Kenneth C. Schoendart, "Racial and Income Disparities in Childhood Asthma," *Ambulatory Pediatrics* 2, no. 5 (2002): 382-87. In this article, the authors conclude that poverty is more closely associated with activity limitations in children with asthma than with the actual prevalence of the disease.

[79] The facts relating to environmental decline and its relationship to social features and health, like all other scientific data, are potentially revisable over time or in the light of new evidence. Some, especially politicians, have at times attempted to discredit claims relating to an environmental crisis. They have demanded "proof" before they will concede that action is necessary, while at the same time accepting contrary, but no more objective evidence, as sufficient grounds for action or inaction. (See for example: Peter Gorrie, "Kyoto Top of Mind - Thanks to Harper: Plan to Scrap Treaty an Issue," *The Toronto Star*, June 13, 2004.) Moral and practical responses, however, must be made on the basis of the evidence to hand at any given time and with regard to its competent interpretation. Evidence of serious environmental destruction, social decline and consequences for health is mounting and must be taken seriously given the potential for devastating consequences for planetary and human survival. In his early work, Van Rensselaer Potter encountered similar difficulties. He found that he was expected to meet higher evidential standards with respect to facts about environment than he was for other scientific data. In his Presidential Address to the American Association for Cancer Research, (May 8, 1975) Potter attempted to respond to the issue by reference to the more general experience of medical researchers. To his colleagues he stated: "When human activity - a pollutant, a process, or a cultural practice - is suspected of causing cancer, the first indications will come long before certainty and hard statistical estimates of risk are available. There is always the risk of crying 'wolf' when there is no wolf, and there is always the danger of waiting until hundreds or thousands of people have been placed at risk. The horns of the dilemma are immediately apparent." Potter then posed a question. He asked: "Is it ethical to withhold the first indications or, putting it in another way, under what circumstances is it ethical to withhold first indications?" (Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," 2301.) Given the strong evidence currently available, of an environmental crisis, a similar question might be asked today.

[80] The case to be presented provides the details of an actual situation that I encountered in my work as a clinical ethicist. Names and some minor details have been changed to protect the confidentiality of those involved. Before writing up the case, the then Director of the Department in which it had taken place was consulted for confirmation of facts.

A Case to Consider

Recently, in a pediatric hospital's department of clinical ethics, a call was received from the Medical Director of the Accident and Emergency Department. She and other health care staff were requesting a bioethics consult. The problem, as they expressed it, was one of resource allocation. They were increasingly stretched to provide services for the huge influx of new patients attending the department over the hot summer months. In fact, patient numbers had increased 40 percent over the same period the previous year. In particular, the volume of children being brought to the hospital with severe asthma, many of whom were very sick, had increased exponentially. The staff needed, they said, additional doctors for the acute care service, a rise in the nurse/patient ratio, more money for technical monitoring equipment and for drugs, and an increase in the availability of hospital beds.

One of the children with asthma who had been rushed by ambulance to the hospital from his school playground was 10-year-old Tyler. It was Tyler's third admission in a 6 week period. On the two previous occasions he had arrived with severe wheezing. His mother had accompanied him to the hospital. Both previous admissions had taken place on unusually hot days during which smog alerts had been broadcast on the daily weather reports for the city. Similarly, his most recent arrival had been on a hot day when such warnings had been issued by the local meteorological services. On this day, the school nurse only had accompanied him to the hospital. On admission he was in a life-threatening state of respiratory distress. Tyler was unable to speak. Already his extremities appeared blue (cyanosis) indicating a dangerous reduction in oxygen flow in his body. He was profoundly agitated and frightened. Tyler needed immediate intravenous medication to open his constricted air passages, fluid replacement also by infusion, oxygen therapy, heart monitoring, and ready access to a mechanical ventilator

in case of respiratory failure. Importantly too, the presence of a nurse to provide comfort was needed. Finding a nurse proved difficult. Too many other patients were in distress, waiting their turn to be seen. Many were seriously ill.

During this emergency period, both his school and a hospital nurse were desperately attempting to contact Tyler's mother, Gloria. A single parent, recently arrived as a refugee in the country, she was working illegally in a factory. A teacher in her own country and without hope of similar employment in her new home, she was now attempting to make ends meet by piecing together odd jobs wherever possible. It was her only way of providing adequately for Tyler and his younger brother. Initial calls to the factory by the school were not communicated to Gloria by the receptionist. Eventually the hospital managed to speak with the employer who agreed to convey the message but he stated that if she required any further time off to attend to her child, her job would be terminated. As she left for the hospital, Gloria was fired from her position. Already living in very poor accommodation in the industrial part of the city, she now had no way of paying her next month's rent, of providing minimal day-care for Tyler's 4-year-old brother, or of providing the essential medication Tyler needed for ongoing, daily treatment of his asthma, a condition that had exacerbated since his arrival in the city. All she had to be thankful for when she arrived at the hospital was that her child's life had been saved. She was grateful too that eventually her employer had conveyed the message, just missing a call to the police that would have otherwise been necessary to bring her to the hospital. Had that happened, her legal status in the country may well have been jeopardized due to her employment status.

In this account, I highlight the particular case of this child because his situation I believe will help illustrate the limits of current models of bioethics to adequately render

the services it purports to provide. Additionally, Tyler's situation reflected similar circumstances to those of so many other children with asthma who were admitted to the hospital around the same time. All had experienced increasingly frequent and severe asthmatic attacks, especially during the summer months. Many such episodes had occurred at times of outdoor play. Although the children came from across the social spectrum, many like Tyler lived in poorer housing conditions situated mainly in industrial areas.

The immediate problems facing the staff who contacted the bioethics department were of course clear. The situation was urgent. The staff members were stretched beyond their limits, trying to do their best for all the patients in their care. Increasingly, it was proving difficult to provide safe and adequate treatment due to the unanticipated need. There was little, if any, extra time to provide compassionate care beyond emergency interventions. Frightened families and very ill children had to endure long waiting times to receive attention. The staff was experiencing not only the practical worries concerning the provision of urgent care but also a sense of moral disquiet. They felt that their inabilities to provide what they perceived to be "good" and "safe" care represented a breach of the moral obligations entailed in their professional/patient relationship. Their appeal to the bioethics department was for support in their application to a seemingly resistant management for additional resources to meet the increasing demands for staffing, treatment and care. Thus for them, and understandably so in the circumstances, resource allocation was perceived to be the central moral issue.

Some short-term solutions were found. Additional money was made available from an emergency purse to pay for two new nurses for a temporary period. A stop-gap budget for drugs and other resources was found. A media project was launched to

distribute information to the public via newspapers, radio and television relating to the appropriate use of emergency care facilities. In the longer-term, one new position for a physician was created. The crisis was at least temporarily averted. It was then assumed that the work of the bioethics department was complete. Their supportive intervention had proved helpful in making the department's case to management for increased resources. The staff could now get on with their clinical work and the ethicists could move on to the next 'trouble-shooting' challenge in acute care medicine.

Some time later as the cooler autumn months approached and the department became less frantic, the clinicians revisited the problem. In anticipation of the peak period next year they would demand an increased annual budget for staffing and for recruitment, additional monitoring equipment and treatment costs. They expected that the earlier interventions of the Bioethics Department, which had given some focus to the moral implications of the problem, would help support their new budgetary claims. Some clinicians whose work included research wished to launch a study to explore the causation of the dramatic increase in the numbers of children with asthma attending the emergency department. They would draft a proposal to fund a project to explore possible genetic implications in the disease causation. Such a study for this particular group of children was thought to be important, and furthermore, it was the sort of research most likely to be funded. The hospital with its research institute had already made a commitment to undertake genetics studies which were seen to be on the "cutting edge" of medical development. Moreover, research of this kind would help further establish the hospital's reputation as an "international center of excellence."[81] National programs for

[81] There exists growing pressure on clinicians to conduct research that is seen to be "on the cutting-edge". By undertaking such work, clinicians bring to their institutions, considerable national and international kudos. With it come, "research dollars" readily offered by private companies that stand to potentially benefit from the findings of such studies. See for example:

genetic research would also be likely to provide funding as part of their commitment to the advancement of science and clinical care, and as a spin-off benefit, to national economic growth and professional job production. Additionally, funding was already obtainable from a private genomics company.[82] In turn, receipt of that private funding would strengthen applications to the public research sector which required the conditions of a private/public partnership before moneys would be released. The only role that was seen relevant for the bioethics department to have in this context was its representation on the Research Ethics Board, mandated to assess and approve specific study proposals.

It is noticeable that during these retrospective case discussions there was no mention of the potential involvement of clinicians in prevention strategies. The only concern was for the continuing and increasing provision of acute care medical interventions. Research, other than genetics studies, or additional research in tandem with such studies, was not considered. There was no expectation that the hospital's clinical ethicists might challenge the proposed approaches or that they might understand their role to transcend discussion about immediate, individual cases, situations or research protocols. Thus, there was no recognition that an ethicist might raise moral questions beyond those concerning the obligation to resource and to provide medical treatment to individual children.

Evelyn Fox Keller, *The Century of the Gene* (Cambridge, MA. and London: Harvard University Press, 2000), 10, 143-44. In some cases, annual performance reviews in academic hospitals have used as a measure of achievement a doctor's ability to obtain funding for the conduct of cutting-edge research. See: Alison Williams and Mary Rowell, "Private Enterprise and Public Good: Ethical Issues in Research Funding," *Annals RCPSC* 32, no. 4 (1999): 227-31.

[82] For an excellent review of economic motivation and the impact of commercialization on the promotion and funding of genetics research see: Lisa Sowle Cahill, "Genetics, Commodification, and Social Justice in the Globalization Era," *Kennedy Institute of Ethics Journal* 11, no. 3 (2001): 221-38.

Given current conceptions of the content and function of bioethics, I believe, such expectations of its role in this situation were largely predictable. For rarely does the discipline challenge the medical or research *status quo*. Clinical ethicists infrequently become involved in discussions that go beyond individual cases or situations.[83] In matters of research they are commonly consulted on whether or not a particular proposed protocol meets international, national or institutional standards for human studies.[84] They are not, however, expected to question the overall research agenda itself and they rarely, if at all, do so.[85] What I will argue is that bioethics must not settle for such limited expectations of its role. Its parameters, scope, content and functions must expand, and the greatest challenges towards such expansion are current global circumstances. They are circumstances that I see reflected in the above case, through analysis of which I will now begin to lay the groundwork for a further critique of bioethics and for a proposal for its reformulation.

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[83] See for example: Doucet, "How Theology Could Contribute to the Redemption of Bioethics from an Individualist Approach to an Anthropological Sensitivity".

[84] In general, a Research Ethics Board (in Canada, the country in which this case occurred) requires that a trained ethicist be a part of its membership. Together, with colleagues of various disciplines, s/he will be involved in the assessment of specific research proposals to ensure that they meet the ethical standards required by international, national and local bodies, and that they are consistent with the law. National codes for research ethics reflect international codes and they require research ethics review to ensure that the proposed study: (1) has been judged by competent individuals to be scientifically valid; (2) that the study question is not frivolous; (3) that the appropriate process for ensuring informed consent of subjects is in place;(4) that potential benefits outweigh potential risks (with risk being assessed both with respect to probability of occurrence and potential magnitude of harm). It is also fair to say that such codes of research ethics do in fact, allude to a just distribution of research benefits and risks across the population, but rarely in my professional experience, do such broader issues enter the discussion. For an example of a comprehensive national research ethics code see: Medical Research Council of Canada, Natural Sciences and Engineering Research Council of Canada, and Social Science and Humanities Research Council of Canada, "Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans," (Ottawa: Public Works and Government Services Canada, 1998).

[85] I base this claim on my own professional observations from work with Research Ethics Committees over a 12 year period.

A Case Analysis: Critiquing Standard Bioethics

In the above case, the expectations of the bioethics service and indeed its actual functions fit well with the standard paradigm of bioethics. The case illustrates, for example, the engagement of bioethics in an acute medical care setting. The questions raised pertain to the immediate and longer-term provision of technical monitoring equipment, rescue therapies and drugs. The questions are also concerned with the resources required, money and staff to ensure such a delivery, the need and demand for which is expected to increase in the future. The goal remains the provision of medical therapies, and in the light of escalating needs, expanding demands and the inexorable march of medical progress, an ever-increasing provision of such therapies. The boundaries of the bioethics discussion are set within this medically-oriented goal. Additionally, in this case, there is a central focus on the provision of such interventions to individual children. Particular case scenarios like the one I have included above were constantly introduced into the discussions to demonstrate the ethical concerns being experienced by the staff whose moral commitment is understood in terms of care for individual patients.[86] Such cases became paradigm cases to illustrate what the staff saw as a moral imperative for management to provide increasing funding to meet the burgeoning needs for medical care of children with asthma. Built into the discussions was an implicit assumption of the rights of individuals to receive such medical interventions. The principles of autonomy, beneficence, non-maleficence and justice were also operational in attempts to resolve the problems presented by this case.[87]

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[86] Marion Danis and Larry R. Churchill, "Autonomy and the Common Weal," *Hastings Center Report* 21, no. 1 (1991): 25-31, at 26-27.

[87] As I have earlier indicated, while in the domain of theoretical bioethics the appeal to principles has been challenged, although certainly not entirely rejected, it remains in clinical discussions, a standard tool used in attempts to resolve practical moral dilemmas. See: Callahan, "Principlism and Communitarianism," 287.

Autonomy was equated with the individual's right (in this case, the right of a child and his or her family) to receive, and if necessary, to demand all available and even potentially available medical interventions. The provision of such medical interventions was seen to correspond to the principles of beneficence (to do all possible for the good for each child), non-maleficence (to avoid harm to them), and justice, perceived as a fair distribution of resources to this group of children. Given the fact that additional funds were provided to meet the immediate needs of each child in this situation, there remained a harmonization between the principles. If, however, resources in the future were not provided to meet increasing needs, such principles, it was anticipated, would come into conflict. One child's needs might be pitted against another's, even within this particular group of children, not to mention other children or groups with differing needs. Where such conflicts occur, and they do frequently in clinical care, the limits of principlism as a tool in bioethical decision-making become clear.[88] Principles, while useful guides do not provide an adequate "algorithm for action" in situations of moral complexity.[89]

Even the involvement of bioethics in the assessment of the research proposed in this case reflects standard concepts of bioethics. It is concerned with the evaluation and approval of a specific proposal, one that is noticeably focused on potential contributions to individuals within a biomedical worldview, at the pinnacle of which, some would assert, is the human gene.[90]

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[88] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics."
[89] O' Neill, "Justice, Gender and International Boundaries," 305.
[90] James D. Watson, "The Human Genome Project; Past, Present, and Future," *Science* 248, no. 4951 (1990): 44-49, at 44.

Thus, the case I suggest illustrates clearly a bioethics, which as Dutney says, is limited to "the care of individuals around medical science." The process of decision-making relied significantly on principlist approaches. Discussion of particular cases played an important part in the deliberations. In this particular situation, the role of bioethics does "admit to limited consideration of communities" (the group of children with asthma) but in line with Dutney's final descriptor of standard bioethics, "it ignores entirely the natural environment."[91] Yet in a case such as this perhaps questions pertaining to the natural environment play a crucial role; questions that were not brought to the table, however, because they transcend the boundaries of what is generally conceived of as the subject matter and function of bioethics.

In making this statement, it is not my intention to deny the relevance or the importance of the role bioethics did play in this case, or of the questions that were raised vis-à-vis the medical care of particular children. What I am arguing, however, is that more attention to the natural environment and to the questions that environmental conditions and their related social connections, raise for medicine, health care and research, is needed. To raise such wide questions is a key, but currently largely missing, function of bioethics.[92]

Why are such questions important, however? What difference, if any, might some attention to the natural environment have made in the case above? Clearly, concerns about the particular children and their need for immediate medical treatment would have still been critical. So too would have been some discussion about meeting projected needs for responsible medical management in the future. Moreover, with respect to the

[91] Dutney, "Bioethics, Ecology, and Theology," 213.
[92] Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," 58.

proposed research it is important that studies be carefully and individually evaluated regarding the ethical conduct of experimentation. Genetic research may be very important for medicine's future capacity to prevent and treat certain diseases.[93] I suggest, however, something significant was missing from the process, that is, the relevant wider context within which such issues need to be raised. As Tom Koch observes, "What we need is what we do not have: a wider perspective in the larger sense of the word, a view that makes apparent the sweep of issues at hand," and the "sweep of issues at hand" in this situation and many others like it, importantly includes, in my view, an awareness of global environmental factors.[94]

In the case in question it has been noted that the dramatic increase in children with asthma admitted to the hospital occurred in the hot summer months during which there was much outdoor play. A large number of these children, including Tyler, arrived at the hospital on days on which smog alerts had been issued, an increasing phenomenon in the city. This correlates with growing health evidence that shows rising levels of asthma among children especially during the summer in cities subject to increasing air pollution.[95] Evidence further suggests, as indicated in the preceding section, that there is a correlation between poverty and asthma either with respect to its

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[93] Genetic science today, is making increasingly possible the pre- and post-natal diagnosis of specific conditions. It is contributing to understandings of disease causation and in this way may provide invaluable data connected to diseases such as the cancers. It holds out the promise of treatments for many terrible diseases, such as Alzheimer's disease, Huntington's disease, cystic fibrosis and Duchenne muscular dystrophy. Many diseases that are thought to have a genetic component may become treatable with special drugs tailored for individuals. Direct gene therapies may become a possibility for a variety of diseases such as some forms of cancer and cardiovascular diseases. To date, however, the clinical applications have been disappointing. Nonetheless, optimism around the clinical potential of genetic research prevails. See: Song, *Human Genetics: Fabricating the Future*, 1-2.

[94] Tom Koch, *The Limits of Principle: Deciding Who Lives and What Dies* (Westport, Connecticut: Praeger, 1998), 9.

[95] Brennan, *Globalization and Its Terrors*, 35. On rising levels of air pollution in cities and its effects on health, see for example: N. Kunzli et al., "Public-Health Impact of Outdoor and Traffic-Related Air Pollution: A European Assessment," *The Lancet* 356, no. 9232 (2000): 795-801.

causation or related to the frequency or severity of its manifestations. Tyler and some of the other children lived in situations of poverty. Indeed, in the province in which this situation arose there is mounting evidence of rising levels of childhood poverty, much of it attributable to loss of work through factors such as economic restructuring, technological innovation, and outsourcing of labor to countries in which workers accept lower wages, benefits and working conditions. At the same time new immigrants, forced to flee their homes because of persecution and violence, some associated with diminishing natural resources, find themselves in situations of poverty in their new countries; families like Tyler's. Moreover, poorer families are often forced by their circumstances to live in areas in which they are exposed to higher levels of environmental contaminants which correlate with an increasing incidence of childhood illness, including respiratory diseases.[96] Poorer families, furthermore, commonly depend on the services of hospital emergency departments, rather than family doctors, for the care of their children with asthma.[97]

Some might argue, however, that factors such as these are the concern of the environmentalists and those who specialize in environmental ethics and public health? They are not part of the mandate of the hospital clinical ethicist, whose concerns, like those of the medical practitioners with whom he or she works, are for individual patients in the medical setting. As Dutney has pointed out, however, and I concur, it no longer makes any sense to have environmental ethics and bioethics, now construed as medical bioethics, functioning "without reference to one another." For, increasingly, Dutney says,

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[96] For these and other details of childhood poverty in the province in question see: Colin Hughes, "Child Poverty Persists, Time to Invest in Children and Families: 2003 Report Card on Child Poverty in Ontario," (Toronto: Campaign 2000, 2003).

[97] This often means crisis care. Many poorer families do not have adequate access to family doctors who in any case in many areas are in short supply. See: Nicola Alexander Hanania et al., "Factors Associated with Emergency Department Dependence of Patients with Asthma," *Chest* 111, no. 2 (1999): 290-95.

"developments in science and technology bring the two streams together", developments that include evidence for the "clear links between environmental degradation and certain human illnesses."[98]

In the case I have described above those links are tangible and yet neglected in the bioethics discussions and in the decisions for action that were made. Consideration of such links, and the questions they generate, however, may well have relevantly widened the scope of action to be supported, action that while more general in character may have ultimately benefited individual children in this group and other patients too.

A broader consideration of environmental facts might, for example, have raised important questions about the level of commitment given by medical professionals to work in illness prevention and health promotion.[99] To be realistic, it would be unfair to expect that such professionals, whose medical schedules are already overly demanding, devote inordinate personal energies in this direction. Nonetheless, this sort of case does seem to call for some attention to ways in which medical professionals, given their expert knowledge and societal status, might work with others in a more integrated manner to achieve environmental improvements that help prevent illness and promote wellbeing. In the context of this particular case critical questions ought to have been articulated, for example, about collaborative initiatives towards the reduction of air

[98] Dutney points out that throughout the eighties and nineties, "ecological bioethics" (generally referred to as environmental ethics) and "medical bioethics" were independent areas of specialization. See: Dutney, "Bioethics, Ecology, and Theology," 227.

[99] In making this statement I do not mean to imply that physicians and other health care professionals working in the acute sector of health care are not already engaged in some initiatives of this kind. Indeed, historically many have contributed much with respect to such concerns. Past codes of ethics and professional practice have generally included some reference to the broader social obligations of health professionals, as do contemporary expositions of medical theory. In general, however, and especially within recent years, such considerations have not been balanced well with the commitments to acute, high-tech care towards which most energy is expended. See: Danis and Churchill, "Autonomy and the Common Weal."

pollution and of childhood poverty associated with disease causation, and about the accessibility of family practitioners and the effective use of emergency department services.[100] A strong medical lobby could have significant impact in the generation of such initiatives. Such approaches in the long-term not only have the capacity to benefit children's health directly, even those in the particular group, but also to contribute to more responsible resource allocation for future medical care.[101]

Taking into account environmental facts and related social issues also presents a challenge to current practices in research ethics. They take it beyond the assessment of individual protocols, important though that function is, to some possible evaluation of the overall research agenda. A question might have been posed, for example, in the situation described above, about whether genetics research was the appropriate route to take. Was such a study most likely to yield best possible results to address the potential causation of asthma or for the wellbeing of children with the disease? Perhaps a study relating to environmental and social problems and their influences on the etiology of asthma would make a better contribution? Or possibly an integrated study combining collective data on genetics, environment and social conditions would have been preferable.[102] Were alternative or complementary studies precluded because of limited

[100] To be fair, in the specific case discussed above, some attention was given to facilitating appropriate use of emergency services. This was done, however, without reference to corresponding initiatives relating to the lack of family practitioner services or asthma prevention in the first place. Without such integration, projects that address the use of emergency facilities are doomed to failure. Integration of effort is thus, crucial for improvements. With regard to childhood poverty it is remarkable that the major report on the matter, in the Province in which this situation arose, had no medical sponsorship. Its sponsors were the Trillium Foundation, a public charity, The Sisters of Saint Joseph of London, Ontario, The Ontario Secondary School Teacher's Federation, The Elementary Teacher's Federation of Ontario and some smaller non-profit agencies and a few individual donors. See: Hughes, "Child Poverty Persists, Time to Invest in Children and Families: 2003 Report Card on Child Poverty in Ontario."

[101] For a helpful discussion of resource allocation in this context see: Nuala Kenny, *What Good Is Health Care? Reflections on the Canadian Experience* (Ottawa: CHA Press/Presses de l'ACS, 2002), 190-94. See also: Danis and Churchill, "Autonomy and the Common Weal."

[102] Some integrated strategies already exist and they provide helpful models for wider approaches to understandings of disease and for the delivery of health care. See for example: National Center

funding available for research other than that which might prove useful "in marketing the products of a rapidly expanding biotech industry"?[103] If so, ought bioethicists and other medical professionals to be challenging the structure of federal funding for research? I suggest that questions such as these, many of which can only be generated by wider reflection on the natural environment and social context, are extremely important in the clinical domain. For the questions that arise in the medical setting for individual patients lack full meaning if they are isolated from the broader context in which they arise.[104] Essentially, continuing discussion of the same medical issues in new cases, but without reference to their dynamic context, never achieves any advance in moral reflection or, importantly, in the practices of health care.[105] As Carl Elliot observes, "when bioethics is driven solely by clinical concerns, usually those of the hospital, it runs the danger of getting stuck in a permanent feedback loop in which the same issues are discussed again and again."[106] Medical bioethics cannot be understood in isolation from the ethics of the environment and of the society of which it is but a part.

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for Environmental Assessment, *Asthma Research Strategy* (U.S. Environmental Protection Agency, 01/10/02 2002 [cited 25/11/03 2003]); available from http://cfpub.epa.gov/ncea/cfm/recordisply.cfm?deid=54825.This strategy aims to develop future research efforts in an integrated manner to explore; (1) factors contributing to the exacerbation of asthma, for example, combustion-related products, bioaerosols and air toxins; (2) susceptibility factors including genetics, general health status, socioeconomic status, residence and exposure history; and (3) risk assessment and risk management of environmental pollutants relevant to asthma.

[103] This point is made about genetics research by Evelyn Fox Keller who maintains that: "gene talk is an undeniably powerful tool of persuasion in promoting research agendas and securing funding but also (perhaps especially) in marketing the products of a rapidly expanding bioetech industry." She continues, "the new partnerships between science and commerce that are daily being forged by the promises of genomics bind genetics to the market with a strength and intimacy that is unprecedented in the annals of basic research in the life sciences." See: Keller, *The Century of the Gene*, 10, 143.

[104] Carl Elliot, "Where Ethics Comes from and What to Do About It," *Hastings Center Report* 22, no. 4 (1992): 28-35.

[105] Gregory E. Pence, *Re-Creating Medicine: Ethical Issues at the Frontiers of Medicine* (Lanham, Md.: Rowman & Littlefield Publishers, Inc., 2000), 186.

[106] Carl Elliot, *A Philosophical Disease: Bioethics, Culture and Identity* (New York: Routledge, 1999), xxii.

This is a sentiment that I believe could be embraced by the comments of influential ethicist Daniel Callahan during a 1988 interview in which he was asked to consider the past and the future of bioethics. Callahan stated: "I've been trying to nudge the field to consider what is good for us communally and collectively. What is good for us as human beings? What kind of choices ought we to make? What kind of society should we want?" In other words, Callahan urges the development of "a much richer agenda in bioethics." He calls for a bioethics that is able to reflect upon "our larger cultural values that help determine where medicine goes, what we think is important, how much money we want to spend on medicine, and how important we think medical progress is." He concludes, "I want to identify those larger background values and ask how we should think about them in order to shape the direction of medicine."[107] Similar views have also been expressed more recently by Gerald McKenny who calls for a much broader moral discourse for the foundation of bioethics.[108]

A Renewal of Bioethics?

Today, perhaps nothing challenges us more to move toward an understanding of bioethics, like that proposed by Callahan above, than does the environmental crisis and its social causes and effects. It challenges us above all, I suggest, to the development of a bioethics modeled on ecology.

Although this is a conclusion I have reached independently in light of my professional study and work in bioethics, it is a conclusion that has also been drawn recently by Daniel Callahan, perhaps an obvious corollary to his earlier reflections

[107] Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," 58-59.
[108] McKenny, *To Relieve the Human Condition: Bioethics, Technology, and the Body.* See especially, chapters 1 and 2.

outlined above.[109] As Callahan sees it, and I agree, a bioethics that draws its inspiration from ecology is necessarily a communitarian ethic; for ecology is fundamentally concerned with the nature of relationships; relationships between organisms with one another and with their environment. Thus, such an ethic holds that the "first set of questions to be raised about any ethical problem should focus on its social meaning, implications and context, even in those cases which seem to affect individuals only."[110] A bioethics of this kind is needed urgently today to enable us to "determine the right set of questions to ask and issues to pursue." It is needed not to deny the importance of contemporary medicine but to balance it in the scales with other goods for human beings. Lastly, it is needed because "liberal individualism", at least its overarching dominance, needs "a strong competitive voice."[111]

In characterizing his notion of a richer bioethics, Callahan reflects on the fundamental question posed by an ecologist. The ecologist always asks first, he says, how in an old or a new habitat, a particular plant or organism will live and affect every other plant. When a new species is introduced into a region, for example, the primary issue is not how well it will individually thrive, although that is important, but what it will do to the community of other species in the area. Will it exist in harmony with them, improve the whole or at least do no harm, or will it be in any way destructive? What Callahan sees the concepts of ecology as providing in this way is:

> A communitarianism - that is meant to characterize a way of thinking about ethical problems, not to provide any rigid criteria for dealing with them. It assumes that human beings are social animals, not under any circumstances isolated individuals, and whose lives are lived out within deeply penetrating social, political, and cultural institutions and practices. It also assumes that no

[109] Callahan, "Principlism and Communitarianism." See also: Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics."
[110] Callahan, "Principlism and Communitarianism," 287.
[111] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics," 499.

> sharp distinction can be drawn between the public and the private sphere. It is important that there be a private and protected sphere, but what counts as private will be a societal decision, not something inherent in the human condition.[112]

In his use of the ecological model in this manner, Callahan provides some important pointers for ways in which bioethics might be construed for the future.

For Callahan, an ecological model will enable us to move beyond the current constraints of bioethics, framed as they are by the undisputed authority of technological medicine and liberal individualism. He believes that the notion of relationship which ecology provides, while not denying the importance of scientific progress or of individual autonomy, calls for reflection on the impact or relevance they have for the whole. How "do they play out" he says, in the larger social and political scene?"[113] Thus the model will facilitate, as Callahan sees it, a better framing of issues of concern in today's society and specifically medicine, and a more relevant enunciation of fundamental questions. What, for example, "are the proper goals and uses of medicine? What are realistic expectations for our health and what kind of research should we support to achieve it?" More generally, "What do we want to make of ourselves as human beings and what kinds of lives ought we aspire to live?"[114]

Callahan believes that such questions cannot be asked, however, without the nurturing of certain analytic skills of rationality, imagination and insight. Rationality makes possible a methodical and clear assessment of facts, but Callahan warns we must be wary of and critical about the assumptions from which our reasoning process

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[112] Callahan, "Principlism and Communitarianism," 288.
[113] Ibid.
[114] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics," 499-500. For similar views see also: McKenny, *To Relieve the Human Condition: Bioethics, Technology, and the Body.*

begins. We must acknowledge, he says, that reasons are not entirely separated from emotions. "Our reasons ordinarily embody and express some emotions just as our emotions embody some cognitive judgments." Moreover, "untutored emotions" form useful signals that appropriately "flag our moral attention."[115] Rationality needs the help of the imagination. At a clinical level, the imagination enables us to better empathize with the needs, pain and suffering of patients. At a policy level it facilitates questions about how a proposed health care intervention or reform might impact the larger environmental or social context. Callahan says:

> The contribution of the imagination is not just to see what logically might follow from a clinical or policy decision, in a chain of cause-effect relationships, but what might in the hurly burly of real life, actually happen, logically or not.[116]

The development of insight or sensitivity is also needed for a richer understanding of bioethics. Insight or sensitivity is a skill that enables us to be critically aware of the ways in which the cultures, of which we are a part, bear upon our moral judgments and actions. All of these skills, Callahan believes, are crucial to the development of an effective ecological ethic.

In Callahan's view the principles that have become so much a part of bioethics today are not rejected in an ecological framework, but the concept of relationship that it entails challenges us to broaden our understandings of them and to place them in right tension with one another. Thus, according to Callahan:

> Autonomy as a moral principle ought to encompass not simply our right to make our own choices whenever possible, but also lead us to take seriously the ethical implications of the different choices open to us, whether in our public or private lives. Serious ethics, the kind that causes trouble to comfortable lives, wants to know what counts as a bad choice. One of the most pervasive moral mistakes is to think that, if a choice is labeled as private, then moral standards no longer apply. ..... Non-maleficence should encompass not simply physical harm or

[115] Callahan, "Principlism and Communitarianism," 288.
[116] Ibid.

> interference with liberty, but threats posed to people's values, social relationships, and welfare, whether from environmental, cultural, or political threats. Beneficence should include an effort to determine just what constitutes the good of individuals even if it means trespassing into the territory of comprehensive theories of the human good. Justice as a principle requires not only a fair distribution of health care resources but must, in the face of scarce resources, also determine just what constitutes appropriate resources to distribute or which should be created by research advances. Some substantive notion of the human good is needed to give justice real bite.[117]

Callahan's use of a model drawn from ecology, therefore, enables him to provide a practical challenge to the limitations of standard bioethics while maintaining aspects of it that have and that continue to serve well. His articulation of bioethics grounded in the concepts of ecology demand wider reflection on environmental and social contexts. Such a bioethics, he claims, would help us understand the social nature of human beings and address the welfare of the whole of humanity while recognizing individual rights. It would support democratic participation in the health care process and widen concepts of human health.[118] I would agree with each of Callahan's claims but if I am right in my reading of him I do not believe that he takes the importance of an ecological model far enough. I will go on to argue that such a model must be much more than simply an application of ecological principles for examining concepts of the human good, human relationships, or human health and medicine, vital though these considerations are. Rather, in my view, the insights of ecology must be expanded to create in us a paradigm shift away from the anthropocentrism or human-centeredness that has come to frame our moral conceptions. For, I will argue, it is precisely such attitudes that have created the problems of current bioethics. What is needed is a more fundamental and pervasive espousal of the concepts of ecology to ground, define and propel bioethics for

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[117] Ibid.: 289.

[118] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics," 503-04. In attempting to hold to a balance between individual rights and the common good, Callahan is clear that respect for individual rights, both positive and negative must be upheld but that few human rights are unlimited. He does not specify which rights he considers are unlimited.

the future, and in earlier work of Van Rensselaer Potter I believe the beginnings of such a focus are to be found.

The Beginnings of an Ecological Model of Bioethics: A Retrieval of the Work of Van Rensselaer Potter

In Chapter 1, Potter's original conception of bioethics was presented as an integration of biology and values designed to guide human behavior and survival.[121] Potter saw bioethics as forming a bridge between science and the humanities.[122] Indeed, a concept of bridging formed a critical and enduring component of Potter's thinking about bioethics.[123] It entailed that the foundation for bioethics be trans-disciplinary so that the richest possible reflection could be brought to bear on moral discourse.[124] From the beginning Potter incorporated ecological concepts into his understandings of bioethics.[125] He realized the need to link what "had become mainstream bioethics with environmental ethics."[126] As Paul Thompson has remarked, "When Van Rensselaer Potter coined the term 'bioethics' in 1970, he intended for it to include subjects ranging from human to environmental health, including not only the familiar medical ethics questions about beginnings and ends of life, but also questions about humanity's place

[121] Potter, "Bioethics, the Science of Survival." See also: Van Rensselaer Potter, "Biocybernetics and Survival," *Zygon* 5 (1970): 127-53.
[122] Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter," 26.
[123] See for example: Potter, *Bioethics: Bridge to the Future*. Van Rensselaer Potter, "Bridging the Gap between Medical Ethics and Environmental Ethics," *Global Bioethics* 6, no. 3 (1993): 161-64. Van Rensellaer Potter, "Fragmented Ethics and "Bridge Bioethics"," *Hastings Center Report* 29, no. 1 (1999): 38-40.
[124] Potter, *Bioethics: Bridge to the Future*, 4. Also see: Potter, *Global Bioethics: Building on the Leopold Legacy*, 2. For a particular expression of this position see: Van Rensellaer Potter, "Science, Religion Must Share Quest for Global Survival," *The Scientist* 8, no. 10 (1994): 12.
[125] See for example: Potter, "Bioethics." and Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address."
[126] Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter."

in the biosphere."[127] Discussed in some detail in Chapter 1, this wide conception of bioethics was termed, "global bioethics" by Potter.[128]

Importantly, as his first book on the topic, *Bioethics: Bridge to the Future,* indicates, Potter's formulation of bioethics and his emphasis on bridging incorporated a marked commitment to the future.[129] His concept of global bioethics was linked to sustainable development for global survival.[130] In this regard he was deeply concerned about the

[127] Paul B. Thompson, "Agriculture and Food Issues in the Bioethics Spectrum," *Medical Humanities Report* 25, no. 3 (2004): 1-5, at 1. Potter was particularly concerned that the questions of bioethics should transcend the dominant technological and genetic approaches that gripped medicine in the United States. See: Potter, "Global Bioethics: Linking Genes to Ethical Behavior." See also: Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter," 27.

[128] Potter, *Global Bioethics: Building on the Leopold Legacy.* According to Warren Reich three senses of global bioethics can be found in Potter's work: "A global bioethics could (1) relate to or involve the entire earth: a worldwide ethic for the good of the world; (2) entail the comprehensive inclusion of all ethical issues in the life sciences and health care (both the 'biomedical' and the 'environmental' issues ...) and (3) utilize a comprehensive vision of methods for approaching those issues: expansively incorporating all relevant values, concepts, modes of reasoning and disciplines." Interestingly, in Reich's analysis he suggests that despite the fact that Potter's concept of bioethics can be clearly distinguished from the biomedical concept of the discipline that emanated from the Kennedy Institute, in fact the features of "a global bioethics" were also characteristic of the work of André Hellegers; the Founding Director of the Kennedy Institute. For Helleger's like Potter, embraced a global concept of bioethics in all three senses described above. Hellegers, for example, was deeply concerned about global issues. In particular, he worried about "global disequilibrium between the powerful and powerless." In his work in obstectrics and fetal research, he was concerned about the reproductive health of migrant women and about the tendency to promote contraception in developing countries without prior consideration for socioeconomic development. In the second and third senses of "global bioethics" too, Hellegers showed a commitment. For example, he consistently linked the Kennedy inquiry into immediate medical dilemmas with "global issues of international health and population dynamics". Helleger's vision of medicine embraced wide societal perspectives. His concept of bioethics, like that of Potter, entailed multidisciplinary and broad methodological approaches. See: Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings." Reich's analysis, I believe raises an interesting and important question about the evolution of bioethics; a question that to my knowledge has not been considered in the literature. That is, if indeed Hellegers did espouse a "global bioethics" (and I agree with Reich that he did), then but for his untimely death following the inception of the Kennedy Institute, might our dominant conception of bioethics now be much wider than that delineated by medico-scientific issues? It would perhaps be a conception of the discipline much closer to that articulated by Potter and manifest, albeit for a short time, in the professional commitments of Hellegers.

[129] Potter, *Bioethics: Bridge to the Future.*

[130] Van Rensellaer Potter and Lisa Potter, "Global Bioethics: Converting Sustainable Development to Global Survival," *Medicine and Global Survival* 12, no. 3 (1995): 185-91.

consequences of global overpopulation.[131] He worried about patterns of over-consumption in some parts of the world and within certain societies.[132] Potter denounced what he saw to be an inherent human predilection for short-term gain without consideration for the potential impact on the future wellbeing of the Earth and of others.[133] Individual interests and autonomous choice had an important place in his construct of ethics but they were to be tempered by wider considerations of community for global survival.[134] Thus, throughout his *Global Bioethics: Building on the Leopold Legacy*, Potter rejects incessant talk of "rights" to focus on human "responsibilities".[135]

Importantly, he advocated a bioethics that emphasized the primacy of wisdom over knowledge. By this he meant that there should be serious consideration as to how we use the knowledge we possess, including scientific knowledge for the survival and improvement of the human condition.[136] "A science of survival must be more than science alone," he commented.[137] A primary goal of bioethics should be to "examine the nature of human knowledge and its limitations."[138] In the process, he thought it

[131] See for example: Potter and Whitehouse, "Deep and Global Bioethics for a Livable Third Millenium," 9.
[132] Potter and Potter, "Global Bioethics: Converting Sustainable Development to Global Survival," 185-91.
[133] Potter, "Getting to the Year 3000: Can Global Bioethics Overcome Evolution's Fatal Flaw?."
[134] Potter and Potter, "Global Bioethics: Converting Sustainable Development to Global Survival."
[135] Potter, *Global Bioethics: Building on the Leopold Legacy*. See also: Smith, *What Are They Saying About Environmental Ethics?*, 54.
[136] Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," 2297. Some knowledge, Potter judged to be "toxic" by which he meant to indicate that knowledge used in the wrong way might be harmful. As a scientist he was acutely aware of the potential for the exploitation or "dangerous" application of new empirical data. Potter, did not, however, concede a dualistic stance between empirical science and the humanities. He remained throughout his life, a committed scientist. What he did consider vital nonetheless, was an integrated approach to human inquiry. See: Potter, *Bioethics: Bridge to the Future*, 69-74. See also: Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter," 28. See also: Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings," 26.
[137] Potter, *Bioethics: Bridge to the Future*, 2.
[138] Ibid., 5.

necessary that both scientists and non-scientists re-examine their respective world views and then come together to share their insights.[139] Potter stated:

> Global bioethics, according to my vision calls for moral responses based on continually developing the best possible understanding of the world and humankind's place in it. As an evolving morality, global bioethics must proceed with humility, responsibility and competence explicitly directed toward the long-range survival of the human species.[140]

It is Potter's final sentence here that is important for any analysis of his work for the purposes of developing a renewed construct of bioethics. For, in his specific focus on the role of bioethics as "bridge to the future", and despite his wide integration of environment, health and medicine into his expression of bioethics, he appears to have been essentially committed to the pre-eminence of human survival and well-being. That is, he takes an instrumentalist approach in which planetary survival and health are critical only in so far as they serve the survival and wellbeing of humankind. Thus, Warren Reich observes, "Potter's substantive vision of bioethics was anthropocentric (concerned with *human* survival) rather than biocentric (survival and wellbeing of the biosphere)."[141] Yet it is precisely this anthropocentric focus of bioethics, even in recent formulations of it that utilize ecological principles, that I have suggested above is inadequate for the development of the discipline.[142] Some significant change or

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[139] Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," 2305.
[140] Potter, "Getting to the Year 3000: Can Global Bioethics Overcome Evolution's Fatal Flaw?," 90-91.
[141] Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings," 322.
[142] Daniel Callahan for example, after using principles of ecology as an analogy for bioethics proceeds to deal only with issues concerning human health. See: Callahan, "Principlism and Communitarianism." In this article Callahan discusses topics that are typical of a 'human-centered' biomedical ethics; problems associated with the provision of blood products to children of Jehovah's Witness parents (289-290), the sale of kidneys for transplantation (290), genetic manipulation and germline enhancement (290-291). To be fair to Callahan, however, it should be noted that the article in question forms a contribution to a festschrift in honor of Dr. Raanan Gillon in which Callahan is responding to Gillon's continuing espousal of principlism using the example of these particular issues. Moreover, it may be argued more broadly, I believe, that in an earlier work of Callahan's he does in fact utilize an ecological ethic. It is a text in which Callahan discusses end-of-life issues and in which he definitely looks beyond individual clinical cases to a questioning of the scope and goals of medicine using an ecological metaphor. See: Daniel Callahan, *False Hopes: Why America's Quest for Perfect Health Is a Recipe for Failure* (New

modification of focus is necessary if the problems that bioethics embraces are to be amenable to any sort of resolution. Therefore, a bioethics that is grounded in something more than a simplistic anthropocentrism is required and it is, despite first appearances, and Reich's analysis above, in Potter's work that I believe we find such a foundation for bioethics. To establish a way forward using Potter's formulation, however, requires first some further exploration of his thinking.

In his *Memorium* for Van Rensselaer Potter, Gerald Lower writes, "When the world gets around to seeing itself as a whole and looking for an intelligent ethics, Van Potter will still be around, it is certain."[143] It was, I contend, just such a vision of the world as a whole that came to mark Potter's thinking. Moreover, it is precisely in the context of his own tensions around the issue of anthropocentrism that I suggest Potter's work offers much potential for the development of a new vision of bioethics.[144]

Certainly in his early work, as we have seen in Chapter 1, Potter did place primary emphasis on human survival. Nonetheless, even in this work Potter was already struggling with the problem of how human relationship with the world around was to be appropriately understood. In his 1970 publication *Bioethics*, for example, he is concerned with "the ethics of the Man/Earth relationship", a relationship that he saw as forming "a basis of Man/Man interpersonal ethics."[145] It is in his first work on global bioethics, however, that I believe a marked shift in his thinking is detectable. For in espousing Leopold's notion of a "land ethic", Potter begins to make clear his recognition

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York: Simon & Shuster, 1998), See especially, 112-38. Nonetheless, nowhere have I been able to find in my research, any comprehensive, explicit and detailed characterization of a bioethics based on ecological principles.

[143] Lower, "Van Rensselaer Potter: A Memoriam," 329.

[144] For a sense of Potter's struggles around anthropocentrism see for example: Van Rensellaer Potter, "Discussion Section: Real Bioethics: Biocentric or Anthropocentric?," *Ethics and the Environment* 1, no. 2 (1996): 177-83.

[145] Potter, "Bioethics," 1088.

that Earth and its human and non-human species form a community of life. To human and non-human species he now extends a concept of intrinsic value.[146] Later, reflecting on his early conception of "global bioethics", Potter said that the work was meant "to extend the 1970 idea (his concern for human survival), to global survival, with careful attention to what is meant by 'survival' and what is ethical activity in pursuing health care and a related concept, 'Earth care' on a global basis." Following Leopold, Potter defines right and wrong ultimately in terms of human survival and preservation of the biosphere. "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong if it tends otherwise."[147]

The shift in Potter's formulation of bioethics and in his efforts to clarify the human/Earth relationship was expanded in his development, with Peter Whitehouse, of a concept of "deep bioethics – a conflation of Potter's "global bioethics" with some concepts drawn from the "deep ecology" movement.[148] Deep ecology, a term originated by Norwegian philosopher Arne Naess, is essentially biocentric.[149] It is also radically egalitarian, recognizing an intrinsic and equal value in all beings.[150] From the stance of the deep ecologist, "humans can no longer be thought of as belonging to a species which makes them exclusively ends-in-themselves, possessed of unique drives and purposefulness."[151] Deep ecology changes the role of the human from "conqueror of the

[146] Potter, *Global Bioethics: Building on the Leopold Legacy.*
[147] Leopold, *A Sand County Almanac and Sketches Here and There*, 224. For Potter's expression of this view see: Potter, *Global Bioethics: Building on the Leopold Legacy*, 17.
[148] Potter and Whitehouse, "Deep and Global Bioethics for a Livable Third Millenium."
[149] Arne Naess, *Ecology, Community and Lifestyle*, trans. David Rothenberg (Cambridge and New York: Cambridge University Press, 1989).
[150] Arne Naess, "The Shallow and the Deep, Long Range Ecology Movements: A Summary," in *Deep Ecology for the 21st. Century*, ed. George Sessions (Boston: Shambhala, 1995), 152. See also: Arne Naess, "Identification as a Source of Deep Ecological Attitudes," in *Deep Ecology*, ed. Michael Tobias (San Marcos: Avant Books, 1988), 257.
[151] Smith, *What Are They Saying About Environmental Ethics?*, 6.

land community to a citizen of it."[152] As a consequence of such thinking, deep ecology suggests that rights are not only attributable to human moral agents but also to all beings which can be affected by the decisions and actions of moral agents.[153] At the heart of deep ecology is an emphasis on how the world is experienced.[154] "Deep ecologists" Peter Whitehouse says, "are those who feel a mystical connection to nature."[155] Deep ecology focuses on "spiritual connections to the natural world."[156]

While the extent to which the features of deep ecology permeated the concept of deep bioethics for Potter and Whitehouse remains somewhat unclear from their writing, what seems to be evident in their work together in this field is Potter's expanding sense of the intrinsic worth of all living beings.[157] For Potter that sense was grounded in an evolving belief in the inherent spiritual connectedness of all life. Moral obligation of humans toward the Earth, other species, and between humans could be derived from

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[152] Potter and Whitehouse, "Deep and Global Bioethics for a Livable Third Millenium," 9.

[153] Smith, *What Are They Saying About Environmental Ethics?* , 12. For a discussion of the attribution of rights in this manner see: Roderick Frazier Nash, *Rights of Nature: A History of Environmental Ethics* (Madison: University of Wisconsin, 1989), 4.

[154] Naess, *Ecology, Community and Lifestyle*, 20.

[155] Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter," 27.

[156] Smith, *What Are They Saying About Environmental Ethics?* , 16. Even before his interest in deep ecology was evident, I believe there are clear indications that Potter already embraced such views. In his, *Global Bioethics* for example he states that: "obligations over self-interest - the self-interest of individuals, corporations, governments here and now ... obligations for future generations can only be fulfilled when sufficient numbers of humans here and now can learn to see, feel, understand love or otherwise have faith in the land community." See: Potter, *Global Bioethics: Building on the Leopold Legacy*, 21-22.

[157] In certain ways Potter and/or Whitehouse did not embrace some of the more extreme positions of many of the deep ecologists. Some deep ecologists for example were disdainful of scientific progress and technological development. See: Smith, *What Are They Saying About Environmental Ethics?* , 9. Potter by contrast committed much of his life to scientific research. He believed there should not be a "moratorium on science but rather, better science." Potter, *Bioethics: Bridge to the Future*, 4. Certainly Potter worried about the dominance of technology and some scientific advances - molecular approaches to medicine in America for example, but he was never dismissive of their contributions to humanity and the world. Potter, "Global Bioethics: Linking Genes to Ethical Behavior." Rather, he looked for appropriate development in science and technology, and wise application of it that balanced human and global survival and wellbeing. Similarly, Whitehouse does not disparage scientific and medical progress but calls for a "science less dominating of and alienated from nature." Whitehouse, "The Ecomedical Disconnection Syndrome," 42.

that belief.[158] On the basis of this view, Potter and Whitehouse became increasingly convinced that the concept of bioethics must expand beyond the narrow focus of clinical ethics dealing largely with individual patient/physician decisions in a corporate setting. The intellectual foundations for bioethics must be wide with multidisciplinary input in the light of which evolution in thinking must occur. It must embrace community concerns, social, environmental and public health initiatives. Individual autonomy, they argued, must be guided and constrained where necessary by community needs and for the survival of the biosphere. Bioethics must address population concerns, health, medicine and consumerism in the light of global circumstances. It must emphasize that a stable ecosystem, health, peace, and social justice are inseparable. In essence its focus must be the health and survival of the whole community of life.[159] I suggest that such a vision of bioethics, however, was only possible and fully realized for Potter through his struggles with respect to the human/Earth relationship.

In his struggles in this regard, I believe that Potter retained an essentially anthropocentric perspective.[160] It was not, however, an approach most commonly associated with the term "anthropocentrism", concerned only or even primarily with the wellbeing of humans, that is so evident in most of our current understandings of health

[158] The belief in spiritual interconnectedness is the one tenet of deep ecology that appears to be clearly emphasized in the work of Potter and Whitehouse on deep bioethics.
[159] Potter and Whitehouse, "Deep and Global Bioethics for a Livable Third Millenium."
[160] Here I mean to suggest that Potter remained very concerned for human survival and wellbeing. In this respect too he did not fully embrace the position often attributed to the deep ecology movement, that of radical species egalitarianism, a position that makes it difficult for its proponents to specify how problems of competing species interests are to be resolved. Instead, Potter seems to have maintained a position more in keeping with Aldo Leopold's land ethic; one that continues to be espoused by others influenced by Leopold. The position implies human obligation to the Earth and protection of other species. Such obligations may sometimes demand selflessness or sacrifice on the part of humans. The moral decisions and actions of humans must always be weighed in the context of the wider environment. Nonetheless, in some hard cases primacy of moral consideration may be given to humans. See for example: J. Baird Callicott, "The Conceptual Foundations of the Land Ethic," in *Companion to "a Sand County Almanac": Interpretative and Critical Essays*, ed. J. Baird Callicot (Madison: University of Wisconsin Press, 1987), 208-12.

care and bioethics. What Potter himself claimed was that his was not a "traditional anthropocentrism resulting in human overpopulation and the progressive extinction of other species", but an "enlightened anthropocentrism that sees the human species in the context of the total biosphere."[161] With his modified conception of anthropocentrism, Pamela Smith contends, Potter remained fundamentally a "Leopoldian ethicist" who espoused an "ecocentric" approach in his work. For such an ecocentric ethics, Smith claims:

> The good of humans present and future, the good of the biota here and potential, and the good of ecosystems flourishing and equipped for continuity provide criteria for moral judgment. .... Intrinsic value or inherent value is found in a multiplicity of beings. Value is not merely a matter of individual worth or of instrumental helpfulness to humans, though beings of beauty are seen as having individual worth, and usefulness to humans and service to their basic needs are certainly allowable. Value is, however, also a matter of the integral role of the variety of beings and things in ecosystems and in the Earth biosphere. From a philosophical perception of the biodiversity that is and the organismic qualities which planet Earth seems to possess, the ecocentric "naturalists," proceed to at least one *ought:* that what is should be, to the extent possible, preserved – and preserved in such a manner that species and systems survive healthily.[162]

In her claim, Smith captures well the essence of Potter's foundation for bioethics. It is a foundation, as I have described above, that is imbued with a reverence for the value of all life and expressed in terms of global content, process and commitment. A vision like Potter's, I contend, is essential for a re-visioning of bioethics . In turn bioethics may then contribute a critical contribution to our understandings of health and to the systems that sustain it. For as Peter Whitehouse has claimed so passionately:

> It is time for bioethicists to ask more penetrating questions about the goals of our research and care systems. If we consider that an underlying goal of bioethics is to promote the survival of human and other life on the planet, then Potter's conceptions of bioethics deserve a renaissance. This will require a wisdom not yet evident in our healthcare systems but called for in Potter's

[161] Potter and Potter, "Global Bioethics: Converting Sustainable Development to Global Survival," 188.
[162] Smith, *What Are They Saying About Environmental Ethics?*, 55-56.

> ethics. Potter was truly prescient in calling for bioethics as a bridge to the future, for without the kind of bioethical thinking that Potter pioneered we may not have a future.[163]

In the light of such a sentiment, I now turn my attention in the remaining chapters of this thesis to the generation of a new vision for bioethics. Drawing upon and expanding some of Potter's key ideas, I will begin to articulate a more detailed ecological model of bioethics, toward the development of which theology has the capacity to make an invaluable contribution.

[163] Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir," 334.

CHAPTER THREE

THEOLOGY, ECOLOGY AND A RENEWAL OF BIOETHICS

Most of the religious communities of our land bear traditions of love for the neighbor and concern for creation that can serve as healthy contrast models to the individualism and anthropocentrism that shape so much of our common life. In essence these communities and traditions can increase our imaginative repertoire making it possible to envision new options and solutions. **James Wind**: ***What Can Religion Offer Bioethics?***

As suggested at the end of Chapter 2, a strong impetus for a more relevant bioethics may be found in the work of Van Rensellaer Potter. Similarly, an ecological framework for bioethics, like that articulated in the recent writings of Callahan and Whitehouse, provides a springboard for a new vision of the discipline that is more in touch with current global circumstances. To achieve this focus, however, trans-disciplinary dialogue and practical engagement are necessary. Those who write of bioethics in an ecological vein in particular advocate the re-engagement of theology with mainstream bioethics. They believe that while theology and the religious traditions it explicates are but one voice in the discussion; that voice is, nonetheless, invaluable for the enterprise.

In this chapter I will, therefore, examine some of the ways in which ecologically-oriented bioethicists believe religious tradition and theology may be helpful for the development of bioethics. However, since none of these bioethicists provide details to support their contentions I will endeavor to explore, within the Christian tradition, a thread of theology, one that emphasizes an "ecological motif", that I believe may help support the reformulation of bioethics.[1] Finally, I will show how within recent years some theologians have rediscovered and developed the riches of this thread and from it have begun to weave a wider understanding of ethics. For it is an ethics that I believe may

[1] I take the term, "ecological motif" from: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology.*

help make crucial contributions to a much needed step in formulating bioethics for today's world.

Theology: A Potentially Constructive Voice in the Development of Bioethics

The conviction that Christian theology and the religious traditions it expresses continue to have much of importance to offer bioethics, despite its current marginalization in the field, is shared by some key commentators, particularly those who espouse an ecological concept of the discipline. Daniel Callahan, for example, suggests that the religious traditions have some distinctive resources to bring to the development of bioethics.[2] He believes two strengths of the traditions stand out. The first is the "long period of reflection on basic human problems, rooted in some ultimate view of human life and human destiny" that the traditions hold.[3] Wisdom for today is to be gained from such accumulative reflection, Callahan contends. Further, the reflection of religious traditions has the capacity to bring richness of content to bioethical discourse, a richness he sees as currently lacking in the discipline. In particular, Callahan believes the traditions have much that is of value to say about growing old, accepting death and enduring suffering, topics that are sadly limited in today's bioethical discourse.[4]

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[2] Callahan believes this to be the case even for those who do not hold religious convictions. His own situation is a case in point. Once a Catholic, Callahan came to reject his religious beliefs but contends that he and other "unbelievers" like him can "still make use of at least some of the insights and perspectives of religion". See: Daniel Callahan, "Religion and the Secularization of Bioethics," *Hastings Center Report* 20 Special Supplement, no. 4 (1990): 2-4, at 2.

[3] Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," 65.

[4] Similar viewpoints are also expressed in the works of other outstanding scholars in the field including noted theologians. See for example: Stanley Hauerwas, "Can Ethics Be Theological?," *Hastings Center Report* 8, no. 5 (1978): 47-49. In particular, Hauerwas stresses the importance of religion for understandings of suffering. See: Stanley Hauerwas, *Suffering Presence: Theological Reflections on Medicine, the Mentally Handicapped, and the Church* (Notre Dame, Ind.: University of Notre Dame Press, 1986). Courtney Campbell too is convinced of the value to bioethics of the longstanding religious tradition of asking questions about the meaning and destiny of human life. See: Courtney S. Campbell, "Religion and Moral Meaning in Bioethics," *Hastings Center Report* 20, no. 4 Special Supplement (1990): 4-10. Lisa Sowle Cahill believes that theology can have a critical function in public discourse around matters of bioethics. See: Lisa Sowle Cahill, "Can Theology Have a Role in "Public" Bioethical Discourse?," *Hastings Center Report* 20, no. 4 Special Supplement (1990): 10-14. Tristram Englehardt. Jr. makes the

Religion's second marked strength according to Callahan is its ability to provide "a very valuable antidote to a secular way of thinking that is absolutely shallow."[5] While Callahan does not provide a specific definition of what he means here by "a secular way of thinking", I believe that it is fair to surmise from the complete article in which this claim is made that he means at least, thinking that is governed by an ethos of individualism and consumerism and which is legalistically circumscribed and entrapped in an exclusionary scientific world view. It is such thinking that Callahan believes currently gives rise to a bioethics incapable of posing profound questions about the human condition, the human place in the world, and thus about the goals of medicine and health care. The religious traditions, Callahan claims, can help move us beyond such limits. In this respect, his claim for the potential contributions of religion, parallel his claim for the potential of an ecological bioethics.

Importantly, Callahan believes that the religious traditions have the capacity "to contribute genuinely to the common dialogue and not simply to provide a sectarian point of view." This is to be achieved "by asking and pressing certain questions as much as by pressing certain answers."[6] Help to do this may be obtained from skilled theologians,

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case that the particularistic claims of religion have an important role in providing moral content to what he sees to be a vacuous contemporary bioethics. H. Tristram Englehardt Jr., "Moral Content, Tradition, and Grace: Rethinking the Possibility of a Christian Bioethics," *Christian Bioethics* 1, no. 1 (1995): 29-47. Mark Hanson also sees religion as providing content to the bioethics discourse. Specifically, he sees religion as having the capacity for informing the moral dimensions of human experience and thus, as possessing the capacity to enrich various aspects of clinical healthcare delivery to both patient and provider. See: Mark J. Hanson, "The Religious Difference in Clinical Healthcare," *Cambridge Quarterly of Healthcare Ethics* 7 (1998): 57-67.

[5] Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," 65.

[6] Ibid. A similar sentiment is expressed by Courtney Campbell when he claims that: "The value of religious understandings for bioethics is not that they provide answers that all must accept, but rather that they raise questions we need to confront." See: Campbell, "The Moral Meaning of Religion for Bioethics," 393.

ministers and leaders who are able to tap the resources of their traditions in such a way as to provide a foundation for common discourse.[7]

Earlier, and from the outset of his work in bioethics, Van Rensellaer Potter believed too that while the discipline was not the property of any organized Church it could, nonetheless, draw on the religious heritage of the past and yet "still reason constructively and critically".[8] In his first book, Potter dedicated an entire chapter to the thinking of Jesuit priest and paleontologist, Pierre Teilhard de Chardin. Although Potter did not embrace de Chardin's argument that a divine purpose could be fulfilled and human progress assured if a certain Christian path were followed[9], he nevertheless applauded de Chardin's endeavors to reconcile science and religion.[10]

Potter also praised the work of theologian Hans Küng and the Parliament of the World's Religions for their efforts to integrate secular and scientific views with traditional religious premises and values.[11] Potter was especially impressed by Küng's attempts to identify common ethical insights at the core of all the world's religions, insights that Potter believed "deserved one's attention and [that] can justify one's hope."[12] Here Potter meant hope for global survival, a concern that he thought Küng, unlike most other theologians, took seriously. The integration of science and religion was a project that Potter himself strongly advocated. "Central to our efforts", he claimed, "must be the

[7] Callahan, "Beyond Individualism: Bioethics and the Common Good, an Interview," 65.
[8] Potter, "Bioethics," 1088.
[9] Van Rensselaer Potter's own spiritual affiliation was Unitarianism.
[10] See: Potter, *Bioethics: Bridge to the Future*, 30-41. The works of de Chardin that most enthused Potter were: Piérre Teilhard de Chardin, *The Phenomenon of Man* (New York: Harper and Row Publishers, 1959). Piérre Teilhard de Chardin, *The Future of Man* (New York: Harper and Row Publishers, 1964).
[11] See: Hans Küng and Karl-Josef Kuschel, eds., *A Global Ethic: The Declaration of the Parliament of the World's Religions* (New York: The Continuum Publishing Company, 1993).
[12] Potter, "Science, Religion Must Share Quest for Global Survival," 12.

promotion of dialogue between science and religion concerning human and biosphere survival."[13] The "role of religion", he said," is a motivating force" in this endeavor.[14]

In Potter's later work with Peter Whitehouse in which they make the case for "deep bioethics", religion is not explicitly mentioned but they see their proposal as introducing a spiritual dimension at the core of bioethics. It is a dimension that they believe to be critical for the understanding of human/Earth relationships necessary for work towards health and survival for both. Indeed, Whitehouse contends that "without the spiritual, human life is meaningless."[15] For Potter, religion and spiritual sensitivity which generates an understanding of connectedness are essential for an ecological bioethics. Thus, those ethicists who believe strongly in an ecological bioethics also believe that religious tradition and theology are necessary partners of it.

Just what that theology might look like, however, the ethicists do not say clearly, but the bioethics they hope for is one that is ecologically grounded. What I will do now, therefore, is to explore the Christian tradition for evidence of a theological ethos that might justify their hopes and trust for a new and effective collaboration between theology and bioethics.

Tradition, Scriptural Interpretation and "God's Good Creation"

To many the idea that Christian theology might support the development of an ecological model for bioethics may seem absurd. As we have seen in Chapter 1 of this thesis some have even held that Christian theology is at the very root of our current

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[13] Ibid. Potter was here referring to: Hans Küng, *Global Responsibility: In Search of a New World Ethic*, trans. John Bowden (New York: The Continuum Publishing Company, 1993).
[14] Potter, "Science, Religion Must Share Quest for Global Survival," 12.
[15] Whitehouse, "The Rebirth of Bioethics: Extending the Original Formulations of Van Rensellaer Potter," 27.

environmental neglect. It will be recalled, for example, that Lynn White Jr. has claimed that Christian interpretations of the Hebrew-Christian Scriptures contribute in a dominant way to the current ecological crisis. Theologian Paul Santmire agrees that in one way this assessment of Christianity is accurate but in another way it is not, since Christian theology from its beginnings until the present day presents a double message with respect to the created world.[16] Using a metaphor of ascent, Santmire illuminates two theological motifs that represent Christian attitudes toward nature - a *spiritual motif* and an *ecological motif*. Each embodies a way of thinking evident in the tradition. The spiritual motif, championed in the early Church by Origen (185-254) and evident in the initial works of St. Augustine (354-430), is predicated on an image of the human spirit rising above nature in order to ascend to communion with God. Within this construct God transcends all that is material. The Christian journey is one of spiritual detachment and of struggle to escape the body and the natural world. According to this perspective, the created world is not to be taken seriously. Indeed, this theological vision is world-denying and, in its extreme manifestations, world-hating.[17]

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[16] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology.*

[17] For a thorough discussion of the approaches of Origen and St. Augustine see: Ibid., 23-73. The following summary is largely derived from the above text. Both Origen and St. Augustine, in his earlier years, were heavily influenced by their surrounding philosophical climate. Indeed, both consciously worked within such parameters. They were essentially "philosophical theologians." Both espoused Neoplatonism in which context reality was seen as a universal hierarchical structure. This structure has commonly been represented as a pyramid at the apex of which is God - ineffable, world-transcending mystery. Below God on the pyramid are the various levels of creation in hierarchical ordering. Closest to God are the angelic beings, then humans perceived as embodied spirits and in lower gradations, the animals, plants, material elements and finally non-being. The creatures nearest God, the angels and human souls, are intellectual beings thus seen to be more perfect than other creatures. What the hierarchy achieves in essence is "an ontology of the spiritual and material." The espousal of this ontology by Christianity in the early Church provides the grounding for the spiritual motif to which Santmire refers, and is further complicated by its incorporation into efforts to explicate a concept of sin. Here then we see the philosophic origins of a world-denying theology and spirituality. (For St. Augustine, this stance was compounded by his early Manichean influence. Manichaeism, a variant of Gnosticism, perceived the entire purpose of salvation to be redemption of humanity from the material world which was seen as evil, to a spiritual realm of the good.) Evidence of this otherworldly stance is seen clearly in the works and life of Origen and of the younger Augustine. The hierarchical ordering of being is set out for example, in Origen's *De Principiis* 1.5.1. The idea that souls are imprisoned in matter, groaning for liberation is seen in his Commentary on Romans 4, for the

Nonetheless, Santmire reminds us of the second motif, an ecological motif that although less dominant at times in the tradition, has been and is central to Christian thinking and spirituality. The ecological motif generates a vision of natural fecundity – an image of a land flowing with milk and honey. It is a theme that resonates with the rich Hebraic narrative of the journey to the promised-land. Here Santmire's metaphor of ascent represents a movement that is "aimed at seeing one's solidarity with the whole world", an affective embrace of nature. "When you 'see' things this way", Santmire says, "it makes a lot of sense to think about loving nature." He continues:

> Following the apostolic mandate (Ephesians 5:1) you can think about *imitating God*, the God who already so richly loves nature, by sharing his very life with nature. When you look down and around from above, therefore, your vision encompasses and celebrates the whole material world. You love everything you see because all things are beloved by God and because God is in all things. You seek to commune with God, in a like manner, not by rising above it all, but by immersing yourself in the world of matter all around you."[18]

This perspective threads deeply through the tapestry of Christian thought. As Santmire claims, "the rudiments for a rich theology of nature are not lacking". Indeed, he says, "at

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world of matter according to Origen is a place of punishment for sin as he explains *in De Principiis* 1.5.1. Matter was created for the purpose of educating sinful humans in their struggle to return to a higher incorporeal end. Indeed the material world was the domain of Satan who fell so far from his original glory that "he was turned into dust." *De Principiis*, 5.1.5. Origen's spiritualization of the human body and of sexual expression is clearly elaborated through his use of allegorical interpretation, in his "First Homily on the Song of Songs (1). "By the Bridegroom" in the text he says, "understand Christ, and by the Bride the Church without spot or wrinkle." In his personal life, Origen was extremely ascetic, as Alan Hayes remarks, "almost pathologically so." Although unproven, it is said for example, that inspired by the text of Matthew 19:12, he castrated himself. See: Alan L. Hayes, ed., *Church and Society in Documents 100-600 A.D.* (Toronto: Canadian Scholar's Press Inc., 1995), 98. Similarly, the younger St. Augustine, demonstrated a deep distaste for the body which he saw as an evil power. He famously wrote, "I desire to have knowledge of God and the soul. Of nothing else? No, of nothing else whatsoever." *Soliloquies* 1.2.7. All references to primary documents with the exception of Origen's First Homily on the Song of Songs" are cited in: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 49, 50, and 57 respectively. The reference to Origen's Homily on the "Song of Songs" is found in the translated document in: Hayes, ed., *Church and Society in Documents 100-600 A.D.*, 102. Hayes is himself using: Origen, *First Homily on the Song of Songs*, trans. R.P. Lawson, vol. 26, *Ancient Christian Writers* (Westminster MD: Newman Press, 1957), 265-83.

[18] H. Paul Santmire, "The Christian Tradition and the Love of Nature," in *Greening Congregations Handbook*, ed. Tanya Marcovna Barnett (Seattle, WA: Earth Ministry, 2002), Section 1, 23-30 at 24.

points, the tradition is dramatically suggestive for those who have eyes to see."[19] Thus, it is to that rich tradition that I now turn. Later in this thesis I will argue that it has much to offer to the development of a bioethics that conceptually articulates the inseparability of environment and health – an ecological bioethics in shape and in function.

From the early Church until the present day the Christian tradition, despite its ambivalent voice, has embraced an ecological motif in its theology, its worship, and in the life of its community. For centuries the wonders of nature have inspired reflection about the Creator.[20] The Church does indeed provide us with a rich theology of creation, one that ultimately calls us to a moral response. While it is not possible, given the primary bioethics focus of this thesis, to provide an extensive history of the ecological scope of theology, below I will endeavor to describe of some of the key expressions of it through the ages. The details I will include are those which show continuity in the tradition and which ground a central Christian ethic.

Creation in the Early and Medieval Church

In both the early Church and during medieval times, theologians and others whose spiritual traditions continue to gift us today interpreted the natural world as God's good creation, as revelatory of God, and as "a partner in salvation".[21] Within the early tradition Irenaeus of Lyon (130-200) stands out in his articulation of an ecological motif. Irenaeus's theology is steeped in a vision of God who brings the whole of creation into being so that God might bring all that is created to final fulfillment through history. In the middle of creation history, Irenaeus sees the Incarnate Word, the enfleshment of God in

[19] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 8.
[20] Elizabeth Johnson, "Foreword," in *Earth, Wind and Fire: Biblical and Theological Perspectives on Creation*, ed. Carol J. Dempsey and Mary Margaret Pazdan (Collegeville, Min: Liturgical Press, 2004), xv-xvi.
[21] Johnson, "The Cosmos: An Astonishing Image of God," 207.

Jesus Christ, as most clearly revealing God's saving purposes. Here it is important to grasp some of his presuppositions. He believed that God's original intention in creating the world was to bring it to consummation. Thus, creation would have had a history of development and fulfillment even if sin had not entered the picture. The incarnation was destined by God to happen regardless of sin. The fact that Adam and his heirs did sin meant, according to Irenaeus, that Christ had a two-fold purpose, "to fulfill creation on the one hand and to redeem humanity on the other".[22] In the work of Irenaeus, the goodness of all creation is thus affirmed. God is present in creation. In his polemic, *Against the Heresies*, Irenaeus says:

> He who fills the heavens, and fills the abysses, is also present with every one of us. For he says, "Am I not a God at hand, and not a God far off? If any man is hid in secret places, shall I not see him?" For His hand lays hold of all things, and that it is which illumines the heavens, and lightens also the things which are under the heavens, and trieth the reins and the hearts, is also present in the hidden things, and in our secret thoughts, and does openly nourish and preserve us.[23]

Thus, already in the beginnings of Christianity we see evidence of a world-affirming theology.

Later in the early Church, and in contrast to his prior spiritualizing attitudes toward material creation, St. Augustine began to espouse some theological positions

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[22] For a clear and comprehensive account of the theology of creation and underlying anthropology of Irenaeus see: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 31-44.

[23] Irenaeus *Against the Heresies* 2. 25. 2. cited in: Ibid., 42-43. Irenaeus's work, *Against the Heresies* constitutes his attack on the views of those who espoused in various ways, what has come to be called Gnosticism. The Gnostics exemplified the extremes of the spiritual motif described earlier. They believed and taught that matter was evil, something to be despised, risen above and destroyed. Thus, they did not accept the doctrine of the incarnation, holding that God would never have permitted [His] Son to become enfleshed for that would have undermined the dignity of God. For the Gnostics, the creation, because of its materiality, was to be denied, rejected, and even hated. In contrast and through his defense against the Gnostics, Irenaeus attempted to affirm what he believed to be God's loving, purposes for the whole of the good creation.

similar to those of Irenaeus.[24] This metamorphosis in his thinking came about primarily through his interpretations of the creation narratives in Genesis Chapters 1 and 2. Over a thirty-year period, Augustine struggled five times to interpret these texts. The result was a significant and positive shift in his thinking toward creation.

Through his consistent reading of the narratives, Augustine came to an appreciation of the temporal nature of creation: that the created world had a beginning given reality *ex nihilo* by God; that it will have an ending in a new creation as proclaimed in Scripture; and that the created order has a middle point with the incarnation of the Word.[25] Here there are very clear parallels to the theology of Irenaeus. Now Augustine, who earlier in his life sought to know "only God and the soul", attempts "to contemplate the whole of reality as a universal, richly endowed history, guided and blessed by God throughout."[26] Augustine's view is that while God does give humanity a prominent place in creation, that place is not given so that humans might *use* creation solely for their own ends but that they might through contemplation of nature's wonders, come to *know* creation in the profoundest manner. In doing so, humans celebrate the purposes of God for creation, consciously and worshipfully.[27] Augustine extols the harmony of nature. He pours out gratitude for the way in which creation reflects the transcendent and fruitful

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[24] My assertion here requires some clarification. It would certainly seem to be the case that St. Augustine moved radically from many of the Gnostic influences of his youth (he had been a Manichean). In much of his work, and in his *City of God,* in particular, he expresses a moving celebration of the natural world. Yet, his more negative, world-transcending stance seems to prevail or at least to dominate in many assessments of his theological contribution, perhaps because in reality their impact has been great in the life of the Church and it continues to this day. See for example, the critique of Augustine in: Michael S. Northcott, *The Environment and Christian Ethics* (Cambridge: Cambridge University Press, 1996), 138, 212-20, 337. Other writers nonetheless, point to the significant theological impact of Augustine's apparent turn to creation. See: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 55-73.

[25] Augustine, *City of God*, Book XII, Chapter 20. The text I am using for this paper is as follows: Augustine, "The City of God against the Pagans," ed. R.W. Dyson, *Cambridge Texts in the History of Political Thought* (Cambridge: Cambridge University Press, 1998).

[26] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 58.

[27] Santmire, "The Christian Tradition and the Love of Nature," 25.

beauty of God, and for its gifts to humankind. In his *City of God*, the book in which his joy in creation is most clearly expounded, Augustine poetically proclaims:

> What discourse can adequately describe the beauty and utility of the rest of creation, which the divine bounty has bestowed upon man to behold and consume, even though he has been and cast forth into the labors and miseries of our present condition? Consider the manifold and varied beauty of sky, and earth and sea; the plenteousness of light and its wondrous quality in the sun, moon, and stars and in the shadows of the forests; the color and fragrance of flowers; the diversity and multitude of the birds, with their songs and bright colors; the multiform species of living creatures of all kinds, even the smallest of which we behold with the greatest wonder – for we are more astonished at the feats of tiny ants and bees than we are at the immense bodies of the whales.[28]

In this work Augustine continues in similar vein, almost to the point of crescendo, reverencing the goodness, gift and beauty of God's creation. Thus, despite some continuing negativity toward nature that occurs in his later works, we nonetheless find in Augustine, a strong and deeply beautiful expression of the ecological motif in the early church.

Perhaps no period of early Christianity, however, better exemplifies this motif than that of the Celtic Church (5th to the 10th centuries C.E.). Celtic Christianity, greatly influenced by the pre-Christian Druidic religion of Britain and Ireland, expresses a deep love of the natural world and of an immanent God.[29] The Druids were the spiritual leaders of the native Celts. They were the priests of the sacred oak groves who celebrated special festivals at equinoxes and solstices. Those Druids who were converted to Christianity attempted to show how "*all of their history* until this time had been a preparation for the coming of Christ."[30] Thus this history, so entwined with a

[28] Augustine, *City of God*, Book XXII, chapter 24.
[29] Barbour, *Nature, Human Nature and God*, 127. For some scholarly and detailed insights into Celtic Christianity and the natural world see: Mary Low, *Celtic Christianity and Nature: Early Irish and Hebridean Traditions* (Edinburgh: Edinburgh University Press, 1996).
[30] Deane-Drummond, *A Handbook in Theology and Ecology*, 36-37.

passion for nature, was integrated into the Celtic Church which expressed it in its poetry, ritual and religious art.[31]

The Celtic Christians proclaimed God's life-giving presence in all of creation. The teacher John Scotus Eriugena, (810-877) claimed, that "Every visible and invisible creature can be called a theophany".[32] Two primary modes of God's revelation exist: Scripture and Creation.[33] "Through the letters of Scripture and the species of creature", God's eternal light is revealed.[34] Themes of the Hebrew Scriptures which extol God's love for creation feature commonly in Celtic Spirituality. The Psalms and the works of the Prophets were prominent in their worship traditions and inspired Celtic poetry and prayers.[35] The God revealed through nature in the Celtic tradition is Trinitarian, a perspective that is very clear in the first stanza of the 8th century hymn, *Saint Patrick's Breastplate*, known in Irish as *Fáeth Fiada* (the Deer's Cry):

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[31] Celtic crosses for example, were often inscribed with scriptural imagery on one side and nature imagery on the other. The beautiful illuminated manuscripts of the time, such as *The Book of Kells*, depict natural symbols. Fruit and foliage decorate their borders. Drawings of birds and animals serve as punctuation marks. See: J. Philip Newell, *The Book of Creation: The Practice of Celtic Spirituality*, ed. Bishop Graham Chadwick, *Rhythm of Life* (Norwich: Canterbury Press, 1999), xx-xxi.

[32] Johannes Scotus Eriugena, *Periphyseon: The Division of Nature*, trans. I.P. Sheldon-Williams (Montreal: Editions Bellamin, 1987), 681A.

[33] Newell, *The Book of Creation: The Practice of Celtic Spirituality*, xxi.

[34] Johannes Scotus Eriugena, *The Voice of the Eagle: Homily on the Prologue to the Gospel of Saint John*, trans. Christopher Bamford (Hudson, NY: Lindisfarne Press, 1990), 37. For his work, emphasizing God's revelation in nature, Eriugena, like many before and after him, even to the present day, was accused of **pantheism** (that is, the belief that God and creation are virtually identical, existing in such a manner that the Divine Being constitutes the substance of all things. This divine identification with nature results in a lack of differentiation between God and the world.) By contrast I will later argue that understandings of God as revealed in nature, both in the tradition and in the work of contemporary theologians and authors, constitutes, **panentheism** (the belief that God's Being includes and penetrates the whole universe, so that every part of it exists in God, but that this Being is more than, and is not exhausted by the universe: God in the world and the world in God, while each remains radically distinct. For the source of the definitions of pantheism and panentheism see: Elizabeth Johnson, *She Who Is: The Mystery of God in Feminist Theological Discourse* (New York: Crossroad, 2002), 230, 31.

[35] The great poems of praise found in the Welsh religious tradition are clearly inspired by many of the Psalms and the writings of the Prophets. See: A.M. (Donald) Allchin, *Praise above All* (Cardiff: University of Wales Press, 1991).

I arise today
Through a mighty strength, the invocation of the Trinity,
Through belief in the threeness,
Through confession of the oneness
Of the Creator of Creation[36]

The Celtic tradition held that the original purpose of creation, despite human sin, became possible again through Christ.[37] For the Celtic mind understood the world as having been created good. While human sin is present it has not destroyed that goodness of God's creation. Redemption is not about saving a fallen creation, a view so often prevalent in a Western religious worldview, but rather it is about liberating the light of God, from the heart of creation and from the essence of humanity.[38] This theme is beautifully exemplified in the "Christmas Carol" of the Hebridean collection of Celtic prayers and poems, the *Carmina Gadelica*. In the carol which speaks of the birth of Jesus, the night "of the Great Nativity", the light of creation is drawn forth in response to His coming:

This night is the long night, ...
Glowed to Him wood and tree,
Glowed to Him mount and sea,
Glowed to him land and plain,
When that His foot was come to earth.[39]

What seems clear from these early readings and from the vision of redemption that they portray is an essential characteristic of Celtic Christianity, that is, a "refusal to separate the gift of nature from the gift of grace".[40] There is an essential unity of the spiritual and material in the Celtic worldview.[41] All of creation was celebrated as God's good gift.

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[36] Text taken from: *Selections from Ancient Irish Poetry*, trans. Kuno Meyer, 2nd ed. (London: Constable, 1913).
[37] Deane-Drummond, *A Handbook in Theology and Ecology*, 40.
[38] Newell, *The Book of Creation: The Practice of Celtic Spirituality*, 12.
[39] Alexander Carmichael, ed., *Carmina Gadelica* (Edinburgh: Scottish Academic Press, 1976), 111-13. cited in: Newell, *The Book of Creation: The Practice of Celtic Spirituality*, 13.
[40] Newell, *The Book of Creation: The Practice of Celtic Spirituality.*
[41] In one respect this may seem paradoxical given the great tradition of asceticism in the Celtic Church, asceticism that at first sight seems to reflect a disdain for the body and for the gifts of nature. Celia Deane-Drummond points out, however, that the Celtic practices of asceticism

Thus, wonderful stories of the Celtic saints and their attachment to animals and birds permeate Celtic literature.[42]

The Celtic Christians also celebrated life as a journey in God's creation, not apart from it or above it. Indeed, creation that so clearly revealed God to them was taking them ultimately to their place of resurrection; "the new eternal world of God's creation, the new heavens and the new earth, proclaimed by the Book of Revelation".[43] This strong ecological faith of the Celtic Church represents a continuing thread in the Christian tradition and one that reached special heights in the Middle Ages.[44]

"In the twelfth and thirteenth centuries," Elizabeth Johnson claims, "appreciation of the natural world in Christian thought reached its zenith."[45] Immediately prior to this period there had been a great revival of Greek learning. In large part this was attributable to encounters with Islam through which a wealth of Arabic translations

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served to focus their minds and hearts on the creative love of God. The aim of their self-denial was simplicity of life. Such striving brought them in close contact with the natural world. Their practices of prayer often took them to wild and magnificent places, heightening their love for the natural world and their appreciation of the beauty and wonders of God's creation. She says, "their asceticism, at its best, was not a romantic escapism or a denial of the worth of the goodness of creation. Rather, it was an affirmation of the love of the creator and all creatures". See: Deane-Drummond, *A Handbook in Theology and Ecology*, 42. The Celtic practices of discipline and asceticism drew on similar traditions in the Eastern Church. They are traditions which I will later argue have relevance for us today in the context of ethics, and bioethics specifically.

[42] Ian Bradley, *The Celtic Way* (London: Darton, Longman and Todd, 1993). Similar stories are also found later in accounts of the life of St. Francis.

[43] Santmire, "The Christian Tradition and the Love of Nature," Section 1, 26.

[44] Johnson, "The Cosmos: An Astonishing Image of God," 207. It would seem to be fair to say that the Christian East "never lost a cosmological perspective, as the Eastern Genesis commentaries passed down from the time of Saint Basil until the Byzantine Empire, and probably later illustrate." Cosmology clearly constitutes an essential part of the East's epistemology and worship tradition. The tradition in the West, in contrast, "waxed and waned through the ages with respect to cosmology." What was lost was much of the scientific basis behind understandings of cosmology in the "general chaos" which followed the decline of the Western Empire. For help in clarifying these points through conversations and personal e-mail, I am indebted to Fr. Guy Trudel, C.S.B. of the Pontifical Institute for Mediaeval Studies at the University of Toronto. The direct quotations cited above are taken from an e-mail communication received from Fr. Guy Trudel.

[45] Elizabeth Johnson, "Losing and Finding Creation in the Christian Tradition," in *Christianity and Ecology: Seeking the Well-Being of Earth and Humans*, ed. Dieter T. Hessel and Rosemary Radford Reuther, *Religions of the World and Ecology* (Cambridge, MA: Harvard University Center for the Study of World Religions, 2000), 3-21 at 6.

of classical scientific works, now translated into Latin, became available in the West. Up to this time the West had access only to a portion of the *Timaeus* of Plato and a few of the logical works of Aristotle. Now, largely thanks to the work of Moslem scholars[46], many of the philosophical and scientific works of Aristotle became more widely available.[47] The works of Ptolemy were also translated into Latin, most significant of which was the *Alamgest*, an important text of classical astronomy. The medical works of Galen and Hippocrates, and a wide range of writings on physics, optics, mechanics and biology, were also now accessible in the West. Additionally, Western scholars owed much to the lively contemporary scientific ethos that emanated from the great Islamic centers of learning. Contact by Western scholars with the Jewish world also contributed much new learning, since Jewish scholars had also made some significant translations of classical works into Latin.[48]

By around 1204, the process of translation had been largely completed and the work of incorporating the new information had begun. The Franciscan, Roger Bacon (1214-1292), was engaged in experimental science and he wrote works on natural science and mathematics. Albert the Great, Thomas Aquinas' teacher was also an avid scientist who composed an encyclopedic biology text, *Quaestiones super animalia* (Questions about living beings).

Added to this new knowledge, burgeoning Benedictine monasticism across Europe, with its charism of *ora et labora*, led to a befriending of nature through the

[46] Notable Moslem scholars of the time include, Albumazar, Alfrangani, Alfarabi, Avicenna and Averoës.
[47] Translations of Aristotle's, Physics, on the Heavens, Meteorology, on the Soul, on Sensation, on Memory and Remembering, on Respiration and on Life and Death amongst others were now available.
[48] N. Max Wildiers, *The Theologian and His Universe: Theology and Cosmology from the Middle Ages to the Present* (New York: The Seabury Press, 1982), 5-17.

taming of the wilderness for agricultural purposes, which although intended for the survival and wellbeing of humans, also served to praise God for the beauty of the earth. The monastic approach to such work has been described as "*cooperative mastery* over nature – neither passive contemplation, nor yet as far as we can see, thoughtless exploitation".[49] Each of the factors outlined above led to a revolution in theological thinking.[50]

There was now a conscious attempt to integrate the cosmos into theology. Specifically, medieval theologians endeavored to construct an '"all-embracing view of the world". They produced a wide range of treatises "on the universe, the world, on the philosophy of the world and on the nature of things".[51] An entire system of thought was developed which reached its climax in the work of the thirteenth century scholastics. It was a system in which three fundamental concepts – God, world and humanity – were harmonized. This great theological endeavor resulted in an impressive synthesis which for centuries, and despite the discrediting of its underlying world picture by science, remained a primary influence in Catholic theology.[52] Critically, the synthesis between the cosmos and biblical doctrine achieved by medieval scholastic theology established the notion of a sacred world order. In some crucial ways, and while its influence must not be over-emphasized or romanticized, this tremendous achievement helped affirm the

[49] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 79. In this vein, René Dubos has described the great heritage of Benedictine monasticism as "a model for ecological responsibility" See: René Dubos, *Reason Awake: Science for Man* (New York: Colombia University Press, 1970), 126f.

[50] For a scholarly and detailed account of these significant developments, see: Richard W. Southern, *The Making of the Middle Ages* (London: Hutchinson's University Library, 1953), especially, 62-67 and 163-208.

[51] Johnson, "The Cosmos: An Astonishing Image of God," 207.

[52] For a superb account of the great theological synthesis and its historical ramifications, see: Wildiers, *The Theologian and His Universe: Theology and Cosmology from the Middle Ages to the Present.* The points that I have outlined above rely greatly on this text especially, pages 5-58.

goodness of God's creation and its revelatory nature.[53] The inclusion in medieval theology of the world in an ordered harmony with humanity before God is remarkable. So too are the instances in which creation escaped the fetters of hierarchical dualism during the period.[54] This is notably seen in some of the works of the great medieval mystics.

Hildegard of Bingen (1098-1179), for example, has much to say in her works about the goodness and unity of creation. She sees the earth as a vessel of all life, and the substance of Christ's incarnation:

> All that the earth issues forth ...is connected and bound to God...The earth is at the same time mother. She is mother of all, for contained in her are the seeds of all. The earth of humankind contains all moistness, all verdancy, all germinating power. It is in so many ways fruitful. All the other parts of creation come from it. Yet it forms not only the basic raw material for humankind, but also the substance of the incarnation of God's son.[55]

[53] It is critical at this juncture to be clear that while the work of the great medieval theologians and other thinkers during the period did to some extent provide an important world-affirming theological perspective, they and their systematization also exhibited, and pervasively so, very negative attitudes toward creation. Theirs was a theology embedded in hierarchical dualism. The spiritual was clearly delineated from matter and was superior to it. The male had greater value than the female. Humanity similarly was assigned value above the non-human world, firmly rooting classical anthropocentrism into the dominant Christian theological tradition. "Creation", says Elizabeth Johnson, "was arranged in a hierarchy of being with the human person, that is, the elite male human person, endowed with a rational soul at the apex." See: Johnson, "Losing and Finding Creation in the Christian Tradition," 7. Ultimately, in the works of Thomas Aquinas, Bonaventure and Dante, the motif of spiritual ascent akin to that espoused by Origen, finds primacy of place. For all their affirmation of the goodness of creation (found in Bonaventure particularly), their eschatological view of God, the angels, and of redeemed humanity predominates. Paul Santmire claims that "in the constructions of these three thinkers the ecological ambiguity of classical Christian thought about nature comes to the fore in a pronounced way". Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 179.

[54] Johnson, "Losing and Finding Creation in the Christian Tradition," 7.

[55] "Letters," cited in: Frederick W. Kreuger, ed., *A Cloud of Witnesses: The Deep Ecological Legacy of Christianity* (Santa Rosa, CA: The Religious Campaign for Forest Conservation, 2002), 207.

In her *Scivias*, Hildegard sees the divine revealed in nature:

> God who made all things by his will, created them so that His Name would be known and glorified, showing in them not just the things that are visible and temporal, but also the things that are invisible and eternal.[56]

She believes all creation to be good, "Why do you deride what is right, plain and just, and good among all good things in the sight of God?"[57] In that goodness, "Man ...is made in a wondrous way from the dust of the earth and so entangled with the strengths of the rest of creation that he can never be separated from them."[58]

In the later medieval period, another great mystic, the Dominican friar Meister Eckhart (1260-1327) extolled the gift of God's immanence in the created world and human awareness of it:

> God is closer to me than I am to myself; my being depends on God's being near me and present to me. So He is also in a stone or a log of wood, only they do not know... So man is more blessed than a stone or a piece of wood because he is aware of God and knows how close God is to him. And I am more blessed, the more I realize this.[59]

For Eckhart, a preacher by his Dominican religious profession, creation spoke louder than words in proclaiming God. With humor he said, "Anyone who truly knows creatures may be excused from listening to sermons for every creature is full of God, and is a book".[60]

Among the medieval theologians, Bonaventure is notable for his affirmation of the goodness of the whole of creation. In his work there are countless references to the natural world as a reflection of the Divine. Every creature is a symbol of God's presence

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[56] Hildegard of Bingen, *Scivias*, trans. Mother Columba Hart and Jane Bishop (New York: Paulist Press, 1990), 94.
[57] Ibid., 87.
[58] Ibid., 98.
[59] *Sermon 69* in: Michael O'Connor Walshe, *Meister Eckhart: Sermons and Treatises* (Shaftesbury: Element Books, 1987), 165.
[60] *Sermons* in: Kreuger, ed., *A Cloud of Witnesses: The Deep Ecological Legacy of Christianity*, 237.

because in its own way it reveals some facet or quality of the nature of God. Bonaventure says to those seeking God:

> Just as you see that a ray of light entering through a window is colored in different ways according to the different colors ...., so the divine ray shines forth in each and every creature in different ways and in different properties ...[61]

Aquinas similarly believed that God's nature is variously reflected in all creatures:

> God brought things into being in order that divine goodness might be communicated to creatures and be represented by them. And because the divine goodness could not be adequately represented by one creature alone, God produced many and diverse creatures that what was wanting in one in the representation of divine goodness might be supplied by another. For goodness, which in God is simple and uniform, in creatures is manifold and divided. Thus the universe participates in divine goodness more perfectly and represents it better, than any single creature whatever.[62]

More than any theologian of his time, Aquinas attempted to integrate understandings of the cosmos, itself an "astonishing image of God", into his philosophical and theological thought. For Aquinas, "cosmology, anthropology, metaphysics, and theology formed a balanced and harmonious whole".[63] Each of these key mystics and theologians of the medieval period sought to express the wonder of God's creation in their lives and in their work. The one person of the period who most stands out, however, for his compelling expression of the ecological motif of Christianity is Saint Francis of Assisi (1182-1226).

Francis's whole life became an affirmation of and thanksgiving for God's good creation. Indeed, the most prevalent image of Francis is that of the lover of the natural world. His great biographers, Saint Bonaventure and Thomas of Celano, attest to his intense love for creation. Celano says:

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[61] *The Soul's Journey to God*, 26 cited in: Ibid., 226.
[62] *Summa Theologiae* 1, q. 47, a. 1. cited in: Johnson, "The Cosmos: An Astonishing Image of God," 207.
[63] Wildiers, *The Theologian and His Universe: Theology and Cosmology from the Middle Ages to the Present*, 49.

> In every piece of workmanship he praised the Craftsman....He exulted in all the works of the Lord's hands, and penetrated through those pleasant sights to their life-giving Cause and Principle. In beautiful things he recognized Him who is supremely beautiful; all good things cried out to him, "He who made us is the Best".[64]

Francis saw God's presence in all things. Creation is redeemed by God through Christ. He celebrated the presence of Christ in all creatures, even "the least of these", a stance beautifully portrayed in his invention of the nativity scene. To teach this vision to local peasants, one Christmas Eve, Francis gathered animals around an altar in a nearby barn, and celebrated the communion of God through Christ, with all creatures of the earth.[65]

Francis's personal sense of such communion with all creatures is seen in his original use of familial terms in his *Canticle of Brother Sun.* When he refers to "Brother Wind" and "Brother Fire" he is recognizing his intimate connection with those elements. When he speaks of "Sister Moon" and "Sister Water" he means that he and they have a common birth.[66] Francis's practice of preaching to the animals suggests that he viewed them as creatures with moral status before God.[67] Moreover, each creature for Francis praises God in its own way. He rejoiced in the diversity of the natural world and in the particular qualities of each entity. Francis's view of the world was essentially sacramental. God's grace is mediated by all creatures.[68] He contemplated the sun, the moon, stars, flowers, fields, waters, vineyards, stones, woods and gardens. In all of this

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[64] Brother Thomas of Celano, *The Lives of Saint Francis of Assisi*, trans. A.G. Ferrers Howell (London: Methuen & Co., 1908), II: 165, 296-97.
[65] Santmire, "The Christian Tradition and the Love of Nature," Section 1, 26. A beautiful account of this first nativity scene is found in the conclusion of Celano's First Life of Saint Francis: Celano, *The Lives of Saint Francis of Assisi*, 1: 84, 82-85.
[66] J. Donald Hughes, "Francis of Assisi and the Diversity of Creation," *Environmental Ethics* 18, no. 3 (1996): 311-20, at 14-15.
[67] Northcott, *The Environment and Christian Ethics*, 89. Stories of Francis preaching to the birds and to flowers are found in: Celano, *The Lives of Saint Francis of Assisi*, 1: 58, 59, 81.
[68] Hughes, "Francis of Assisi and the Diversity of Creation," 316.

he found liberty and joy.[69] Out of this contemplative stance flowed gratitude and thence the foundations for his behavior. As Donald Hughes remarks, "his behavior toward living things can be seen as an ethical application of reverence for each kind of creature in the diversity of creation."[70] From his understanding of God's life in and love for nature, and the Christian call to imitate God, Francis took Jesus' call to love our neighbors as a call to love all creatures, each one part of a universal community.[71] His reverence for nature and his care for animals are legendary. For unlike many of his contemporaries, Francis did not espouse the Aristotelian position in which all non-human beings have as their purpose the service of humankind. According to Eric Doyle, Francis believed that "Nature has a meaning in itself because it is created by God, it does not have value or meaning purely for man."[72] The relationship between human and non-human is one of mutuality.[73]

In the life of Francis then we see a full "flowering of the ecological promise of classical Christian thought".[74] Little wonder that he has been named the patron saint of ecology.[75] Not surprisingly, his example is invoked by religious and non-religious people alike as a beacon for the future. For, from his great love of creation and contemplation of nature, realized in his manner of living, came a powerful ethical imperative.

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[69] Celano, *The Lives of Saint Francis of Assisi*, 1: 80-81.
[70] Hughes, "Francis of Assisi and the Diversity of Creation," 317.
[71] Santmire, "The Christian Tradition and the Love of Nature," Section 1, 27.
[72] Eric Doyle, *St. Francis and the Song of Brotherhood* (New York: Seabury Press, 1981), 399. Francis, for example, instructed the friars working in the vegetable garden to leave ground so that grass and flowers might grow wild and so give praise to God. When the brothers were cutting wood he forbad them to cut down the whole tree so that it might have hope of new growth. Celano, *The Lives of Saint Francis of Assisi*, II: 165.
[73] Hughes, "Francis of Assisi and the Diversity of Creation," 319.
[74] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 178.
[75] In 1980, Pope John Paul II designated Francis of Assisi, patron saint of ecology - interestingly, a move that was first suggested by the critic of the Christian tradition with respect to ecology, Lynn White Jr.

Loss and Continuity of an Ecological Motif in Reformation and Post-Reformation Theology

That great reverence for nature and the moral response that flowed from it nonetheless diminished rapidly within the Church. It was largely lost amongst the theological emphases of Reformation theology and negated in the face of rapid scientific advance. Even so, a thread of ecological vision continued to weave its way through the tradition, albeit very finely, between the Reformation and today. Despite a profound anthropological turn, precipitated by the great *solas* – Scripture alone, Christ alone, faith alone, grace alone – that took hold in Protestant thought, for example, the chief Reformers continued to give some voice to the goodness of God in nature.[76]

Both Luther and Calvin spoke of the presence of God in the natural world, of human connectedness with nature and of the eschatological consummation of nature.[77] For Luther, wonder was to be found in a grain of wheat. In his commentary on Genesis he even imagined Adam and Eve, before the fall, sharing a common table with the animals.[78] Although Luther believed that God's highest self-disclosure is revealed in the cross of Christ,[79] he did not discount revelation in nature. He was clear that:

> "God is substantially present everywhere, in and through all creatures, in all their parts and places, so that the world is full of God and He fills all, but without His being encompassed and surrounded by it."[80]

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[76] Johnson, "Losing and Finding Creation in the Christian Tradition," 9.
[77] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 122.
[78] Santmire, "The Christian Tradition and the Love of Nature," Section 1: 27.
[79] Justo L. Gonzalez, *The Story of Christianity: The Reformation to the Present Day*, vol. 2 (San Francisco: HarperSanFrancisco, 1985), 31.
[80] *Luthers Werke Kritische Gesamtausgabe* (Weimar), 23. 134. 34. Cited in: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 129.

Luther comments on human connectedness with nature. "I believe", he says, "that God has created me and all that exists"."[81] He also speaks of the fulfillment of nature at the end of time:

> Then there will be a new heaven and a new earth, the light of the moon will be as the light of the sun, and the light of the sun will be sevenfold ...that will be a broad and beautiful heaven and a joyful earth, much more beautiful and joyful than Paradise was.[82]

Similar sentiments are found in Calvin's works. Indeed, about nature, the manner in which God is reflected in it, and through which God calls humans, he is at times poetic:

> In every part of the world, in heaven and on earth, he has written and as it were engraven the glory of his power, goodness, wisdom and eternity ...For all creatures, from the firmament even to the centre of the earth, could be witnesses and messengers of his glory to all men. Drawing them on to seek him, and having found him, to do him service and honour according to the dignity of a Lord so good, so potent, wise and everlasting ...For the little singing birds sang of God, the animals acclaimed him, the elements feared and the mountains resounded with him, the river and springs threw glances toward him, the grasses and flowers smiled.[83]

For the sake of accuracy, however, these world-affirming expressions of belief and spirituality must be seen in context. For, as noted above, the dominant trend in the emerging Protestant ethos was rather toward a deeply embedded anthropocentrism. The Reformers were preoccupied with the relationship between God and humanity. Both Luther and Calvin viewed nature as created primarily *for* humans. The world was a backdrop for human salvation. Furthermore, Calvin emphasized the justified Christian's life as one of active sanctification. Thus, he interpreted the notion of dominion in interventionist terms. The responsibility of Christians according to Calvin was to change

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[81] Martin Luther, "Small Catechism," in *The Book of Concord: The Confessions of the Evangelical Lutheran Church*, ed. Theodore G. Tappert, Jaroslav Pelikan, and Arthur C. Piepkorn (Philadelphia: Fortress Press, 1959), 345.

[82] Martin Luther, "Selected Psalms," in *Luther's Works*, ed. Jaroslav Pelikan (St. Louis: Concordia Publishing House, 1955), 119, 21.

[83] John Calvin, *Opera Selecta* 9. 793, 795. Cited in: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 128.

the world for the better. Some commentators have, therefore, seen his theological vision as linked to the development of capitalism and, in its wake, to the technological and scientific exploitation of nature. Whether or not this judgment of Calvin's stance is fair, it is certainly the case that technological and scientific advance escalated, giving rise to the mechanistic science of Newton and later to Darwinian evolutionary theory in the eighteenth and nineteenth centuries.

With such developments, post-Reformation theology became increasingly focused on the divine/human relationship, emphasizing the human spirit or human subjectivity. Nature by contrast was seen as object and was largely given over to study by natural scientists. A dichotomy was forged between nature and the world of spirit.[84] As Elizabeth Johnson points out, "After the Reformation, for centuries, neither Catholic nor Protestant theology kept pace with new scientific worldviews. Instead, they focused on God and the self, leaving the world to one side."[85]

Such a position was strengthened during the latter part of the twentieth century. For with the ecumenical opportunities afforded by the Second Vatican Council, and despite its avowed intent to open the Roman Church to dialogue with the modern world, the newly possible sharing between Roman Catholics and Protestants tended generally to entrench the anthropocentric characteristics of post-Reformation theology.[86] Further, as Paul Santmire puts it:

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[84] Santmire, "The Christian Tradition and the Love of Nature," Section 1: 28.
[85] Johnson, "The Cosmos: An Astonishing Image of God," 207.
[86] Ibid. Division between religion and science had of course been evolving since the Copernican upheaval which so threatened the geocentric worldview of the Middle Ages. To avoid the far-reaching theological and pastoral implications of such a revolution, the response of the Church had been largely to ignore the scientific facts, a strategy that prevailed for centuries, in some cases it might be argued to the present day. The disastrous effects of the condemnation of Galileo by Rome, led to a view that the Church was opposed to science. The result of this was the strengthening of a theology that did not engage in dialogue with science and thus, the Church

> This spiritualizing anthropocentric dynamic also made it easy for Christians everywhere to be swept along by the dynamics of modern industrial society, which were publicly predicated on the domination of the earth for the sake of human progress. So by default, if not by intention, Christian theology in this era handed over nature to the developers and the exploiters of nature.[87]

At the dawn of the modern era then, the ecological promise of Christianity seemed virtually to have disappeared, rendering the voice of theology all but irrelevant in the context of a world largely defined by scientific and technological progress. Yet, even in this climate and over a span of years, the ecological thread of the tradition, although worn thin, persisted. It found expression in the work and example of a number of notable Christian thinkers.

Evolution, Process Thought and Modern Theology

Jesuit priest and paleontologist Piérre Teilhard de Chardin (1881-1955), for example, tried to connect the evolutionary world with religious expression and doctrine. For his efforts he met with accusations of pantheism, ecclesiastical censure and the ridicule of some in the scientific world.[88] Despite the tremendous suffering such condemnation caused him, however, de Chardin continued his work arriving at a remarkable synthesis of scientific and religious thought.[89] Through his writings, de

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became increasingly alienated from the natural world. Such a position was further entrenched by philosophical developments begun and generated by Descartes who consciously strove to separate cosmology from theology. Rejecting the idea that God's existence could be deduced from cosmic properties such as motion or order, and so breaking with the tradition of Aristotle and Aquinas, Descartes argued that the idea of God is innate in the mind of [man]. Thus, religion has nothing to do with science. The corollary being that "science can progress, unimpeded". For an excellent description of this process and history see: Wildiers, *The Theologian and His Universe: Theology and Cosmology from the Middle Ages to the Present*, 140-52.

[87] Santmire, "The Christian Tradition and the Love of Nature," Section 1: 29.

[88] Johnson, "Losing and Finding Creation in the Christian Tradition," 9.

[89] de Chardin, *The Phenomenon of Man*. Piérre Teilhard de Chardin, *The Divine Milieu* (New York: Harper, 1960). de Chardin, *The Future of Man*. Piérre Teilhard de Chardin, *Hymn of the Universe* (London: Collins Fontana Books, 1970). Due to ecclesiastical condemnation, much of de Chardin's work was published posthumously. Such censuring or the threat of it throughout the history of the Church has had the effect of deterring many who might otherwise have explored the conjunction of science and religion or who would have committed more fully to a spirituality of creation. To this day an uninformed wariness on the part of some in ecclesiastical authority,

Chardin conveyed a profound sense of the sacredness of nature and of the interconnectedness of all of life.[90] In his approach, de Chardin extended the theory of evolution beyond biological progression to encompass spiritual growth. He envisioned the universe, the whole of reality, as a process moving toward "divinization".[91] In this regard de Chardin's work shows the strong influence of Process Thought, expounded by philosopher Alfred North Whitehead (1861-1947).[92]

Whitehead, challenging the constructs of traditional metaphysics, conceived reality as process. All entities and occasions possess freedom to develop and to be influenced by their surroundings. Whitehead's philosophical framework is then consistent with the emerging evolutionary theory of the period. The process of development and change is set against a background of permanent order which is seen as an organizing principle necessary for growth. Whitehead claims that God may be identified with the background of order, intrinsic to the process.[93] God is here understood as an entity but

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especially within the Roman Catholic Church, with respect to science and creation continues to threaten those would develop this sort of thinking or who would re-orient spiritual expression in the light of creation. To be fair however, de Chardin's unique and somewhat mystical style of writing makes his thought difficult to understand or to classify clearly, thus, opening it up to criticism that is sometimes quite valid. Nonetheless, his writings have had a powerful and positive influence on many and across a wide spectrum of interest. It will be recalled from chapter 2 of this thesis, for example, that Van Rensselaer Potter in his conceptualization of bioethics expressed a debt to the work of de Chardin. In his expressed desire to see a new dialogue between science and religion for the sake of bioethics, Potter looked to de Chardin as a great example to be followed for the present day.

[90] A deep sense of the sacred nature of the natural world and of the interconnectedness of all life is clearly expressed in de Chardin's powerfully evocative, *Hymn of the Universe.*

[91] See especially: de Chardin, *The Phenomenon of Man.* This aspect of Teilhard's work is however, problematic for although he brought the world of evolutionary creation and its sense of sacredness to many, and his work continues to do so, his emphasis on divinization can be interpreted as potentially entrenching a spiritualizing focus in theology.

[92] Alister E. McGrath, *Christian Theology: An Introduction* (Oxford: Blackwell Publishers, 1994), 227. Whitehead's process thought is clearly expressed in: Alfred North Whitehead, *Process and Reality: An Essay in Cosmology. Gifford Lectures Delivered at the University of Edinburgh During the Session 1927-28*, Revised ed. (New York: Free Press, 1969). This text was originally published in 1929.

[93] This aspect of process thought has been seen by some to be theologically problematic. To what extent is God to be identified with the world? If our understanding of God shifts such that there is less distinction between God and the world it becomes possible to assert that God and

an entity that can be distinguished from other entities on the basis of "imperishability". Other entities exist for a time only. God exists permanently. Each entity may be influenced by previous entities and by God. In Whitehead's theory, causation is not associated with coercion but with influence and persuasion. Entities influence one another both physically and mentally. This is also true of God. God acts in a persuasive manner but within the limits of created process itself. Moreover, God does not simply influence other entities but is also influenced by them.[94] Thus, a primary understanding of God in Process thought is as one who suffers with created entities.[95] The world is seen as a dynamic whole, all beings possessing individual but not equal value. This concept of value proves helpful in situations in which values conflict. Nonetheless, the process as a whole is to be respected and valued over its specific parts for which we may feel a particular empathy. The relevance of this approach for an ecological theology is thus clear.[96] Indeed Whitehead's thought, redefined in Christian categories by the renowned philosopher of religion and metaphysics, Charles Hartshorne (1897-2000) formed the foundation for what has become known as Process Theology.[97]

Process theology was one of the first Christian models to take the ecological crisis seriously and process theologians helped keep alive a Christian ecological focus

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creation are one or at least a part of each other. See: Deane-Drummond, *A Handbook in Theology and Ecology*, 103. Similar theological problems arise with the so-called *Gaia Hypothesis*, pioneered by scientist James Lovelock in the 1970s and intertwined with process and some ecofeminist thought. The *Gaia Hypothesis* presents a perception of the Earth as a living dynamic, creative system - behaving as a unified system (named after the Greek Earth goddess, Gaia). See: James Lovelock, *Gaia; a New Look at Life on Earth* (Oxford: Oxford University Press, 1979). For a clear and helpful critique of the Gaia hypothesis and its relevance for ethics see: Celia Deane-Drummond, *The Ethics of Nature* (Oxford: Blackwell Publishing, 2004), 162-85.

[94] McGrath, *Christian Theology: An Introduction*, 227.

[95] Northcott, *The Environment and Christian Ethics*, 148-49.

[96] McGrath, *The Re-Enchantment of Nature: Science, Religion and the Human Sense of Wonder* (London: Hodder & Stoughton, 2002), 47-48.

[97] For an excellent summary of Hartshorne's life and his work in this area see: Dan Dombrowski, *Charles Hartshorne* (The Stanford Encyclopedia of Philosophy, Edward N. Zalk, Editor, June 3, 2004 [cited February 24, 2005]); available from http://plato.stanford.edu/archives/fall2004/entries/hartshorne/>.

during the dry years. Furthermore, they radically developed it, establishing a novel ecotheological paradigm that continues to exert influence today, especially in North America amongst liberal Protestants and Catholics alike.[98] Process theology attempts to make sense of the Christian experience in the light of the modern scientific world, more recently incorporating new investigations involving quantum physics and molecular biology. It abandons the individualistic notion of human agency, inherited from the Enlightenment and from classical Protestant theology, favoring instead a concept of "person-in-community". It promotes the idea of an ecological rather than a mechanistic view of nature. In Process theology there is no dichotomy between humanity and the rest of nature. God permeates all of nature and is present in each individual being. All beings thus have intrinsic value because they manifest the divine – a rejection of traditional Christian anthropocentrism.[99] John Cobb, Jr., Process theology's early proponent, makes this sense of the value of all beings clear in his book, *The Liberation of Life*, written with biologist, Charles Birch. Cobb and Birch, following the thinking of Whitehead, do not, however, attribute equal value to all beings. For them, the only absolute value is life itself.[100] Human wellbeing, within their framework, cannot be dissociated from the wellbeing of the rest of the world.[101] Taking seriously the practical implications of the ecological crisis, Process theologians ascribe responsibility to humans for healing and growth in the world. This is a function, which according to Cobb and Birch, incorporates transcendence which through grace enables us to do "the unexpected and unimagined".[102]

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[98] Northcott, *The Environment and Christian Ethics*, 147.
[99] Stephen Bede Scharper, *Redeeming the Time: A Political Theology of the Environment* (New York: The Continuum Publishing Company, 1998), 75-77.
[100] Birch and Cobb, *The Liberation of Life: From the Cell to the Community*. For this discussion see especially pages 144 and 205.
[101] John B. Cobb, Jr., *Is It Too Late?: A Theology of Ecology* (Beverly Hills, CA.: Bruce, 1972), 142-43.
[102] Birch and Cobb, *The Liberation of Life: From the Cell to the Community*, 108.

The practical emphasis given Process theology by John Cobb has been sustained and developed by its more recent adherents. Jay McDaniel, for example, focuses on animal rights. He critiques agricultural, entertainment and animal research practices and advocates vegetarianism.[103] He grounds his practical trajectory in a development of the traditional Christian themes of stewardship and *Imago Dei*, both of which he interprets in terms of earth care and as "stewardly compassion".[104] Similarly, another recent Process theologian, Catherine Keller, speaks of human responsibilities in the context of environmental degradation. In Keller's case, she sees such responsibility framed within eschatological terms, in what she calls "the greening of eschatology". By this Keller means that Christians must review their notions of a new earth transformed by God, in the light of its present transformation by humans. She thus calls humans to practical and creative engagement in the natural world.[105] Keller, initially much influenced by the work of Feminist scholar Mary Daly, integrates Process thought within an ecofeminist ethos, a topic to be discussed later in this chapter.[106]

Like Jay McDaniel, Keller further seeks to foster a deep ecological spirituality, central to which is the concept of *Shalom*.[107] Influenced by the Scriptural scholarship of Walter Brueggemann, both Keller and McDaniel understand the translation from Hebrew of the word *Shalom* to mean not just "peace" but more expansively "the fullness of

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[103] Jay B. McDaniel, "Land Ethics, Animal Rights, and Process Theology," *Process Studies* 17, no. 2 (1988): 88-102. Cited in: Scharper, *Redeeming the Time: A Political Theology of the Environment*, 91.
[104] Scharper, *Redeeming the Time: A Political Theology of the Environment*, 92-93.
[105] Catherine Keller, "Talk About the Weather: The Greening of Eschatology," in *Ecofeminism and the Sacred*, ed. Carol J. Adams (New York: Continuum, 1995), 30-49.
[106] Catherine Keller, *From Broken Web: Separation, Sexism and Self* (Boston: Beacon Press, 1986), Catherine Keller, "(Interview)," in *Listening to the Land: Conversations About Nature, Culture, and Eros*, ed. Derrick Jensen (San Francisco: Sierra Club Books, 1995), 273-81.
[107] Scharper, *Redeeming the Time: A Political Theology of the Environment*, 95-100.

life".[108] For McDaniel this means a spirituality in which "ecstasy, trust, wholeness and solidarity" are fostered to ground human concern for the natural world. The concern to which McDaniel refers entails the wise use of technology and the minimization of human interventions that may be in any way environmentally destructive.[109] He does not idealize the concept of *Shalom*, recognizing natural limitations, but he does see it as embracing "openness to the divine heart".[110] The fruits of such openness include "value-pluralistic thinking, care for others, a hunger for justice, the enjoyment of relational power, union of thought and feeling, a discovery of oneself as creatively integrative, an appreciation of nature as organic and evolutionary, and a reverence for life."[111] The fullness of *Shalom* for McDaniel is realized in Jesus, whose life, death and resurrection are witness to this vision.[112] Keller integrates her expression of *Shalom* with her eschatological conceptions of nature. She sees it in terms of hope "not for life without death but for a long and full life" in concert with healed nature – "the land imagined as new Israel, new heaven, new earth, new Jerusalem.[113] Process theology and the spirituality to which it gave birth thus helped sustain and develop the ecological vision in Christian thinking and it does so to this day.

Process theologians, however, were not the only theologians to keep alive the flame of creation in the Christian tradition. Others contributed in their own ways. Paul

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[108] The concept of *shalom* is rich in many of Brueggemann's works. For a comprehensive discussion in which Brueggemann focuses specifically on the biblical concept see: Walter Brueggemann, *Living toward a Vision: Biblical Reflection of Shalom* (New York: United Church Press, 1982).

[109] Jay B. McDaniel, *Earth, Sky, Gods and Mortals: Developing an Ecological Spirituality* (Mystic, Conn.: Twenty-Third Publications, 1990), 18.

[110] McDaniel's spirituality is open to other religions and cultures. See: Scharper, *Redeeming the Time: A Political Theology of the Environment*, 95.

[111] Jay B. McDaniel, *Of God and Pelicans: A Theology of Reverence for Life* (Philadelphia: Westminster, 1989), 144.

[112] McDaniel, *Earth, Sky, Gods and Mortals: Developing an Ecological Spirituality*, 160. See also: Scharper, *Redeeming the Time: A Political Theology of the Environment*, 94-95.

[113] Keller, "Talk About the Weather: The Greening of Eschatology," 44.

Tillich (1886-1965), for example, stressed the necessity of modern theology to be in dialogue with human culture. He thus deplored the duality that had arisen in his own Protestant tradition between faith and natural science. Inspired by the works of Augustine and Luther, the Romantic Movement,[114] and through his explorations of Buddhism, Tillich sought to explicate a theology of nature. With his understanding of God as "the ground of being" he developed a theology that emphasized the mystery of God in creation and the fecundity of nature through its participation in the Divine life.[115] In this sense, Tillich developed a sacramental theology of nature which is clearly expressed in his essay *Nature and Sacrament*.[116] Thus Tillich made an important contribution to an Earth-affirming theology. In this he is accompanied by a contemporary, the Lutheran theologian Joseph Sittler (1904-1987).

Sittler is perhaps one of the most important and yet least acknowledged theologians to contribute to a theology of nature, or as he would have it, "a theology *for* nature".[117] As early as the 1940s, long before any public ecological awareness emerged and prior to Lynn White's great criticism of Christianity's neglect of creation, Sittler was preaching and writing about the Church's responsibility for the environment.[118] While many recent works in ecotheology turn on the Scriptural and traditional notion of stewardship or care for the environment, Sittler took such an approach to be too limited for an adequate expression of the environmental imperative. Rather, the "dialectic of

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[114] For an excellent summary of the Romantic Movement and its impact on theology see: Northcott, *The Environment and Christian Ethics*, 86-90.
[115] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 141.
[116] This essay may be found in: Paul Tillich, *The Protestant Era*, trans. James Luther Adams (Chicago: Chicago University Press, 1948), 94-112.
[117] Joseph Sittler, *Gravity and Grace* (Philadelphia: Fortress Press, 1987), 67.
[118] Two excellent collections of Sittler's writings and sermons have been published recently. See: Joseph Sittler, "Evocations of Grace: Writings on Ecology, Theology and Ethics," ed. Steven Bouma-Prediger and Peter Bakken (Grand Rapids: William B. Eerdmans, 2000). Joseph Sittler, *The Care of the Earth* (Minneapolis: Fortress Press, 2004).

nature and grace" formed the substantive focus of his work concerning the environmental problematic.[119] "Nothing less than the doctrine of grace", Sittler claimed, "would be an adequate doctrine to shape the Christian community's mind and practice in a way appropriate to the catastrophe in the environment. God creates his creation in grace. The creation itself is a realm of grace."[120] It is a grace not against, above, or identical with nature, but a grace that is transforming nature.[121] Thus for Sittler a "doctrine of redemption is meaningful only when it swings in the larger orbit of a doctrine of creation".[122] Grace is focused in the person of Jesus Christ in whom God becomes "historically present, radiant and available for our knowing".[123] Appealing to the New Testament, the Letter to the Colossians (1:15-20) in particular, and influenced by the cosmic Christology of the Eastern Orthodox Church, Sittler concluded that: "The way forward is from Christology expanded to its cosmic dimensions, made passionate by the pathos of this threatened earth, and made ethical by the love and wrath of God."[124] Grounded in a doctrine of grace and in Christology, Sittler was also a practical theologian. He saw his work as having clear ethical consequences. Humans should reverence creation. They should delight in its gift for "delight is the basis of right use....A world received sacramentally in joy is a world sanely used".[125] Conversely, Sittler

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[119] Peter Bakken, "Introduction. Nature as a Theater of Grace: The Ecological Theology of Joseph Sittler," in *Joseph Sittler. Evocations of Grace: Writings on Ecology, Theology and Ethics*, ed. Steven Bouma-Prediger and Peter Bakken (Grand Rapids: William B. Eerdmans, 2000), 5.
[120] Sittler, *Gravity and Grace*, 13.
[121] Bakken, "Introduction. Nature as a Theater of Grace: The Ecological Theology of Joseph Sittler," 5.
[122] Joseph Sittler, "Called to Unity," *Ecumenical Review* 14 (1962): 178.
[123] Bakken, "Introduction. Nature as a Theater of Grace: The Ecological Theology of Joseph Sittler," 6.
[124] Sittler, "Called to Unity," 186.
[125] Sittler, *The Care of the Earth*, 53, 61. Within the Eastern Orthodox tradition, Paulos Gregarios has developed the image of the Cosmic Christ and through that the inclusion of all of nature in the sphere of redemption. See: Paulos Gregarios, "New Testament Foundations for Understanding the Creation," in *Tending the Garden*, ed. Wesley Granberg-Michaelson (Grand Rapids, Mich.: Eerdmans, 1987), 83-92.

considered abuse of the earth – environmental destruction - as use without delight and grace.[126] Throughout his work, he calls the Church to action for the earth. He says:

> If in piety the Church says, 'The earth is the Lord's and the fullness thereof' (Psalm 24:1) and in fact is no different in thought and action from the general community, who will be drawn by her word and worship to 'come and see' that her work or salvation has any meaning? Witness in saying is irony and bitterness if there be no witness in doing.[127]

Joseph Sittler's work, much of it carried out within the context of ecumenical dialogue, thus challenged his contemporaries.[128] It continues to challenge us today. He and Tillich, amongst other Protestant theologians, sustained the Christian reverence for creation during difficult days. Additionally, they gave new expressions to the tradition, and in so doing shared significantly in laying down the foundations for the development of ecotheology that was soon to take place.

Among the Roman Catholic theologians whose work also helped pave the way for the emergence of ecotheology Hans Küng is notable.[129] In working out his understanding of God and of God's relationship with the world, Küng takes a panentheistic perspective:[130]

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[126] Sittler, *The Care of the Earth*, 60.

[127] Sittler, "Evocations of Grace: Writings on Ecology, Theology and Ethics," 206.

[128] In 1961, Joseph Sittler was a keynote speaker for the General Assembly of the World Council of Churches held in New Delhi. Here his focus on theology and environment raised some alarm and controversy among delegates of a more traditional persuasion. It was especially well received, however, by Eastern Orthodox delegates who saw in it echoes of their own prevailing respect for creation. Throughout his professional life and ministry, Sittler continued to commit to ecumenical endeavors for the wellbeing of the poor and of Earth.

[129] It should be noted in 1979 Hans Küng was prevented from teaching as a "Roman Catholic" theologian. He continued to teach theology, however, and became Director of the Institute for Ecumenical Research in the University of Tübingen.

[130] Küng disputes, however, the sort of God-identification with the world that he perceives in the work of Teilhard de Chardin and in the process thought of Whitehead and his followers. Küng holds to a very clear distinction between God and creation believing a distinction to be essential for the definition of both and for the sake of the "God and man" relationship. See: Hans Küng, *Does God Exist?* (London: William Collins, Sons & Company, Ltd., 1980), 115. Jürgen Moltmann, a Protestant colleague of Küng's in Tübingen, whose insights have also contributed greatly to an ecological theology, similarly seeks to describe a distinction between God and creation. Like Küng, Moltmann holds a panentheistic viewpoint. He believes that God as Spirit is in creation. God is not, however, entirely identified with creation for God as Trinity, he claims is both related to

> God is the infinite in the finite, transcendence in immanence, the absolute in the relative. ...The Absolute in the world is therefore at once sustaining the world, maintaining the world and escorting the world: at once depth, center and height of the world and man.[131]

For Küng, affirmation for the world is rooted in faith in the Creator God. This faith calls for respect for other humans and respect and care for non-human nature. He believes that the command to "subdue" the Earth found in the first creation story in Genesis can never license uninhibited exploitation of the Earth. Belief in the Creator God, he says, "means accepting with greater seriousness, greater realism and greater hope my responsibility for my fellow man and for the environment and the tasks assigned to me".[132] Küng took on this responsibility in his writing and global initiatives and he, like Sittler, conducted and has continued to conduct such work in a broad ecumenical context. Küng's work also incorporates an inter-faith dimension.

As noted at the beginning of this chapter, Küng attempts in his work to integrate contemporary secular and scientific culture with religious beliefs and values. With his colleague Karl-Josef Kuschel, Küng drafted *A Global Ethic: The Declaration of the World's Religions*. This significant document begins "The world is in agony". The manifestations of that pain are clear, "peace eludes us ... the planet is being destroyed ... neighbors live in fear ... women and men are estranged from each other ... children die!"[133] Against this backdrop of destruction Küng and the signatories of the Declaration

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creation as Son and Spirit but is distinct from creation as 'Father'. For an excellent and comprehensive analysis of Moltmann's contribution to ecological theology from which I derived the above comments, see: Celia Deane-Drummond, *Ecology in Jürgen Moltmann's Theology* (Lewiston/Queenston/Lampeter: The Edwin Mellen Press, 1997). In confining my reference to Moltmann's work, at this point to a footnote, I do not mean to downplay its immense value in the development of ecotheology. Indeed, I see Moltmann's ideas as exceedingly important and I will, therefore, include some of his key theological concepts in a later discussion to be developed in the next Chapter.

[131] Küng, *Does God Exist?*, 115.

[132] Ibid., 642.

[133] Kung and Kuschel, eds., *A Global Ethic: The Declaration of the Parliament of the World's Religions*, 13.

believe that what is needed is a wider vision, "a global ethic".[134] Küng maintains that such a global ethic already exists. It is to be found in all the religious teachings of the world. A global ethic can help lead men and women to a better world order and it is an ethic, moreover, "that can be affirmed by all persons with ethical convictions, whether religiously grounded or not".[135] Today, we have in place adequate cultural, economic, technical and spiritual resources to bring about a better global ethic, but it cannot be achieved until peoples of the world live together in peace. The need to live in peace pertains to the world's religions too. Küng and his partners are not being naive about the serious differences between religions. They do believe, nonetheless, that the ancient wisdom common to all religions, including the great commandments and principles they share, has the potential to point the way to a new and more promising future not only for humankind but for the environment too.[136] This significant religious response, given powerful leadership by Küng, has both illuminated global problems and offered some hope in its proposed commitments. They are commitments that resonate well with those espoused by Liberation theologians, who through their identification of environmental

[134] Ibid. To discuss and develop the Declaration, 6,500 people representing the World's, religions large and small, met in Chicago from 28 August to 4 September 1993. Vigorous discussion and sharing took place. When the final version of the Declaration was complete the vast majority of the delegates endorsed the Declaration, signing on behalf of countless people of faith throughout the World.

[135] Ibid., 19. This thought echoes the hope that we have seen Van Rensselaer Potter held when he argued for the importance of religion's contribution for the development of a more ecologically oriented bioethics.

[136] Ibid. They claim, for example, that the commandments shared by the major religious traditions can be re-articulated in positive terms in response to present global circumstances. "You shall not kill" becomes, "Have respect for life", a commitment to non-violence, to the sustaining of life and to justice and care for the vulnerable, human and non-human. "You shall not steal" is expressed as," Deal honestly and fairly". This calls for a denunciation of poverty and action to remedy it including, the development of just economic strategies to prevent violence and environmental destruction. Limitless consumption by the wealthier nations must be stopped. "You shall not lie" becomes "speak and act truthfully". Here the Declaration calls institutions, churches, politicians, scientists and the media to particular account with respect to honest representation. Finally, by way of example, "You shall not commit sexual immorality" becomes "Respect and love one another", calling for condemnation of sexual exploitation, the development of true partnerships between men and women, and a change in the institution of marriage such that the rights of all members to mutual respect, security, appreciation, care and concern can be realized. Here too, special attention is paid to the needs of the elderly and of children. See: Küng and Kuschel, eds., *A Global Ethic: The Declaration of the Parliament of the World's Religions*, 25-34.

degradation with the sufferings of the poor and oppressed have led to a remarkable flowering of ecotheology that continues today.

Oppression, Liberation and Ecotheology

Gustavo Gutiérrez, the Peruvian theologian who was the first to synthesize the ideas of a Theology of Liberation, claims that people became increasingly aware that to be "dispossessed" meant not only for them to be cut off from other humans, political process, and the opportunity to flourish, but also from right (and rightful) relations with the land.[137] Basing his thought clearly in Scripture, Gutiérrez called for a theology and spirituality of life encompassed in the concept of *Shalom*. Gutiérrez understands the concept as "a state of wholeness and integrity, a condition of life that is in harmony with God, other people and nature".[138] According to Gutiérrez, the reality of such harmony is embodied most effectively in the Beatitudes (Matthew 5:3-13) in which the disciple is called to that "meekness" which receives from the land on which he or she lives, "a promise" of life".[139] Ecological concerns thus became a central feature of much liberation theology for "the cry of the poor", always at the heart of liberation theory and praxis is also the "cry of the Earth". Gutiérrez believes that liberation theology's moral imperative, "the preferential option for the poor", now demands a prophetic stance and action toward the eradication of unjust systems and structures of greed that contribute not only to deep human suffering but also to the suffering and despoilation of Earth.[140] Leonardo Boff,

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[137] Gustavo Gutiérrez, *We Drink for Our Own Wells: The Spiritual Journey of a People*, trans. Matthew J. O'Connell (Maryknoll, NY: Orbis books, 1984).
[138] Gustavo Gutiérrez, *The God of Life*, trans. Matthew J. O'Connell (Maryknoll, NY: Orbis Books, 1991), 26.
[139] Ibid., 118-39. See also: Smith, *What Are They Saying About Environmental Ethics?*, 58.
[140] Gutiérrez believes at this point in time, "the preferential option for the poor" has become an integral part of Catholic social teaching. In a recent interview in the United States, he likened the context of liberation theology to the historical context of the Catholic Church in North America that has a long tradition of "being close to the struggling poor". See: Daniel Hartnett, "Remembering the Poor: An Interview with Gustavo Gutierrez," *America* 188, no. 3 (2003): 12-16.

who has given prominence to ecological concerns in his expression of liberation theology, sums this position up in the following way:

> Liberation theology and ecological discourse have something in common: they start from two bleeding wounds. The wound of poverty breaks the social fabric of millions and millions of poor people around the world. The other wound, systematic assault on the Earth, breaks down the balance of the planet, which is under threat from the plundering of development as practiced by contemporary global societies. Both lines of reflection and practice have as their starting point a cry: the cry of the poor for life, freedom and beauty (cf. Exodus 3:7) and the cry of the Earth groaning under oppression (Romans 8: 22-23). Both seek liberation.....Now is the time to bring these two discourses together.[141]

Boff draws his theological insights from his lived experience in his native Brazilian base communities and from his focus on the threatened Amazon River. Using traditional Christian sources, he also seeks an ethics of solidarity and communion that embraces the value and rights of all life.[142] This ethics he calls, "globalization", giving the term a meaning that differs from its current dominant definition.[143] Globalization, he maintains, entails a thoroughgoing commitment to the elimination of a dominant class system, the recognition of equality for the poor and ecological justice.[144]

Like Boff, theologian Sean McDonagh places great emphasis on the correlation between environmental degradation and human injustice.[145] In his work, McDonagh is greatly influenced by the work of cultural historian and priest Thomas Berry, whose emphasis on the new cosmogenic story guided McDonagh in his articulation of an eco-

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[141] Leonardo Boff, *Cry of the Earth, Cry of the Poor* (Maryknoll, N.Y.: Orbis Books, 1997), 104.
[142] Leonardo Boff, *Ecology and Liberation: A New Paradigm* (Maryknoll, NY: Orbis Books, 1995), 89.
[143] For details of this see: Boff, *Cry of the Earth, Cry of the Poor*, 203-20.
[144] Ibid.
[145] Sean McDonagh, *To Care for the Earth: A Call to a New Theology* (London: Cassell Publishers Ltd., 1986). Sean McDonagh, *The Greening of the Church* (Maryknoll, NY: Orbis Books, 1990). Sean McDonagh, *Passion for the Earth* (Maryknoll, NY: Orbis Books, 1994).

ethic of hope.[146] Within such an ethic McDonagh presumes that the "preferential option for the poor" is inseparable from the option for threatened life-forms and bioregions.

McDonagh sets out in his work to provide substantive facts similar to those I have included in Chapter 2 of this thesis, to demonstrate empirically, the inseparability of Earth destruction and human poverty and suffering. He is highly critical of traditional interpretations of the biblical notion of stewardship which he claims casts Judeo-Christian thinking in an anthropocentric paradigm, a point to which I shall return in Chapter 4.[147] He is also highly critical of the Roman Catholic magisterium which he perceives as failing to address the problems of human suffering and natural degradation with adequate attention and urgency.[148] Drawing on his pastoral experience in the Philippines, he calls for greater participation in economic and political initiatives and structures.[149] He consistently recommends, for example, that policy on debt forgiveness or amnesty be based on the Biblical customs of the Jubilee year which are set out in Leviticus 25: 23-31.[150] Central to McDonagh's thinking, as for most environmentalists, is the concept of sustainability. Always committed to praxis, McDonagh describes a framework for a "pastoral ministry of sustainability" based on his belief that "ecological

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[146] McDonagh, *Passion for the Earth*, 124-45. In chapter 4 of this thesis in which I will set out a foundation for a new bioethics, I will refer in some detail to the work of Thomas Berry. McDonagh in his work found very helpful sources in two of Berry's works in particular: Thomas Berry, *The Dream of the Earth* (San Francisco: Sierra Club Books, 1988). Brian Swimme and Thomas Berry, *The Universe Story* (New York: Harper Collins, 1992).

[147] McDonagh, *Passion for the Earth*, 131-34.

[148] Ibid., 134-36. McDonagh is especially critical of the anthropocentric focus of the encyclical, *Veritatis Splendor*, written by Pope John Paul 11 and issued on August 6, 1993. McDonagh bemoans the missed opportunities to address issues of environmental concern in this encyclical and he goes on to make admirable recommendations for where such issues might have been included. At the time, McDonagh's critique of the magisterium seems to present a fair picture. Since his publication of this critique, however, a considerable volume of material supporting an environmental ethic has been produced by the Roman Catholic Church. Much of it is very powerful in its call to Christians. Reference to this will be included in the introduction to my next chapter.

[149] Smith, *What Are They Saying About Environmental Ethics?*, 61.

[150] McDonagh, *The Greening of the Church*, 31-37. McDonagh, *Passion for the Earth*, 75-82, 86-90.

concerns must now move from the distant, almost non-existent periphery to center stage in the pastoral ministry of the churches".[151] The churches must, McDonagh claims, also become thoroughly engaged in reforms of economic and political systems. Christians must re-order their priorities, develop a vibrant theology of creation, reclaim and stand prophetically with the poor and with threatened nature.

Feminist Voices and the Growth in Ecotheology

Ecofeminist theologies also take as their starting point the notion of dual oppression; that is, the oppression of women and the oppression of nature with which the feminine is associated. Ecofeminist theologians explore the *interconnections* between the domination of women and the domination of nature.[152] Their intended aim is to recover and/or develop world perspectives and strategies that liberate and heal these conjoined dominations. To that end, they seek to understand better and to educate others about the causation of domination, its cultural penetration, societal maintenance and manifestations.[153] Ecofeminist theology is thoroughly engaged in the world and in challenging the *status quo*. Charlene Spretnak claims that "ecofeminists address the

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[151] See for example: McDonagh, *Passion for the Earth*, 147-61. The specific quotations included here are to be found on page, 147.

[152] The ecofeminist movement emerged in the 1970's largely in North America although the concept was introduced by Françoise d'Eaubonne in her 1974 publication, *Le Féminisme ou la Mort*, in which she called upon women to initiate an ecological revolution to save the planet. See: Françoise d'Eaubonne, *Le Feminisme Ou La Mort* (Paris: Pierre Horay, 1974). See also: Françoise d'Eaubonne, "Le Temps De L'ecofeminisme," in *Ecology: Key Concepts in Critical Theory*, ed. Carolyn Merchant (Atlantic Highland, NJ: Humanities Press, 1994), 174-97. For an excellent overview of ecofeminism see: Carolyn Merchant, *Radical Ecology: The Search for a Livable World* (New York: Routledge, 1992). See also: Karen Warren, *Ecological Feminism* (New York: Routledge, 1994). Eaton, "A Critical Inquiry into an Ecofeminist Cosmology".

[153] Rosemary Radford Reuther, "Ecofeminism: The Challenge to Theology," in *Christianity and Ecology: Seeking the Well-Being of Earth and Humans*, ed. Dieter T. Hessel and Rosemary Radford Reuther, *Religions of the World and Ecology* (Cambridge, MA: Harvard University Center for the Study of World Religions, 2000), 97-112.

crucial issues of our time, from reproductive technology to Third World development, from toxic poisoning to the vision of a new politics and economics - and much more".[154]

Feminist analysis has shown the dual domination of women and nature to be enmeshed in patriarchal culture, with its origins in hierarchical understandings of the cosmos and ancient structures of subjugation which are reinforced in codes of law and social mores. In the patriarchal context, women are identified with body, matter, earth, sexuality, potency and with all the presumed weakness, inferiority and tendency to sin that follow. Men, by contrast, are identified with spirit, act, mind and progress, considered superior characteristics.[155] In classical Christian thought these notions are enshrined in the idea of a male monotheistic God who is over and against creation, a concept that has justified the domination of women and has also, as Rosemary Radford Reuther says, rationalized "alienation from and neglect of the Earth".[156] Our modern societies reflect these views in the continuing oppression of woman and in their disregard for and abuse of Earth.

To heal the problems associated with the traditional patriarchal worldview ecofeminist theologians have called for an alignment of the ecological initiative, which

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[154] Charlene Spretnak, "Ecofeminism: Our Roots and Our Flowering," in *Reweaving the World: The Emergence of Ecofeminism*, ed. Irene Diamond and Gloria Feman Orenstein (San Francisco: Sierra Club Books, 1990), 8-9. A variety of works produced during recent years witness to this engagement. See for example: Maria Mies and Vandana Shiva, *Ecofeminism* (Halifax, N.S.: Fernwood Publications, 1993). Joni Seager, *Earth Follies: Coming to Feminist Terms with the Global Environmental Crisis* (New York: Routledge, 1993). Ivonne Gebara, *Longing for Running Water* (Minneapolis: Fortress Press, 1999). Vandana Shiva, *Stolen Harvest: The Hijacking of the Global Food Supply* (Cambridge, MA: South End Press, 2000). Vandana Shiva, *Water Wars: Privatization, Pollution and Profit* (Cambridge, MA: South End Press, 2002). Frances Hutchinson, Mary Mellor, and Wendy Olsen, *The Politics of Money: Toward Sustainability and Economic Democracy* (London: Pluto, 2002). Heather Eaton and Lois Ann Lorentzen, eds., *Ecofeminism and Globalization: Exploring Culture, Context and Religion* (Lanhan, MD/Toronto: Rowman and Littlefield, 2003). Rosemary Radford Reuther, *Integrating Ecofeminism, Globalization and World Religions* (Lanham, MD: Rowman and Littlefield, 2005).

[155] Mary C. Grey, *Sacred Longings: The Ecological Spirit and Global Culture* (Minneapolis: Fortress Press, 2004), 124.

[156] Radford Reuther, *Gaia and God: An Ecofeminist Theology of Earth Healing*, 4.

explores the interdependence and interaction of all life forms, with ecological theology, concerned with interrelationship within the web of life that is God's good creation.[157] There must be a questioning and reconstruction of the cosmological framework out of which the Christian worldview grew from its ancient roots in the Hebrew and Greek worlds.[158] Ancient and modern dualisms must be overcome in order to establish right relationship between God, humanity and the natural world. The dualism between soul and body must be rejected as well as the presumption of the superior and controlling role of "male-identified mind over female-identified body".[159] To this end, Mary Grey, in her recent and beautiful book, *Sacred Longings*, says that ecofeminist theology entails four key analytical processes: rethinking knowing; rethinking the world; rethinking the human person; and rethinking the mystery of God.[160] Grey's identification of these processes provides a helpful framework for outlining some of the central characteristics of ecofeminist theology.

Rethinking knowing, calls for a new vision of the world. Starting with the central feminist hermeneutic, women's experience of relationship, ecofeminism involves humans coming to know themselves as a part of the whole web of life, "in communion and interdependent with all living things".[161] Coming to such knowing entails an epistemological shift. This is not simply a matter of the mind and the acquisition of external factual evidence, although it may include experience of such facts. Rather, the knowing that is an awareness of connectedness is a knowing that "lets in the world" in a

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[157] Rosemary Radford Reuther, *New Woman: New Earth* (New York: Seabury Press, 1976), 203-04. See also: Ursula King, *Women and Spirituality* (Basingstoke: Macmillan Education, 1989), 216. Anne Primavesi, *From Apocalypse to Genesis: Ecology, Feminism and Christianity* (Minneapolis: Fortress Press, 1991), 36.

[158] See for example: Radford Reuther, *Gaia and God: An Ecofeminist Theology of Earth Healing.* Sallie McFague, *The Body of God* (London: SCM Press, 1993). Primavesi, *From Apocalypse to Genesis: Ecology, Feminism and Christianity.*

[159] Radford Reuther, "Ecofeminism: The Challenge to Theology," 103.

[160] Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 130-35.

[161] Ibid., 130.

compassionate, empathic manner. It is to be touched in feeling by the world, allowing "a sense of kinship with the non-human", and it "draws on a bodily experience as a valued part of knowing". Through a "logic of connectedness", says Grey, "we are heartened, encouraged to engage with compassionate empathy with the bodily experiences of people culturally and politically other".[162] Knowing in this way also involves a sense of love for, and wonder at, creation.[163] In ecofeminist thinking, the world is sacred. Attending to the wonder of the world entails a sacramental perception.[164] Rethinking knowing also challenges the boundaries and the fragmentation of knowledge, a stance which is characteristic of our present day. It calls for a trans-disciplinary approach to knowing - a sharing and dialogue.[165] Furthermore, the experience of interrelatedness that is generated by such knowing, combined with our contemporary understandings of evolutionary process, involves a letting go of notions of human dominance and rule over the earth.[166]

In the footsteps of these epistemological shifts new ways of thinking about the world have emerged. What ecofeminists have rejected is seeing the world in the abstract. Theory must ground and motivate praxis and in turn praxis must inform and

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[162] Ibid., 131.
[163] Theologians, Dorothee Soelle and Shirley Cloyes write of the need to recapture such a sense of love and wonder as a counterbalance to the more domineering and masculine concept of knowing. They want to replace a solely technological attitude with "a passion for creation". See: Dorothy Soelle and Shirley Cloyes, *To Work and to Love: A Theology of Creation* (Philadelphia: Fortress Press, 1984). Similarly, Radford-Ruether believes that "healed relation to the Earth cannot come about simply through technological fixes". Radford Reuther, *Gaia and God: An Ecofeminist Theology of Earth Healing*, 2.
[164] Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 165.
[165] This approach is exemplified in the work of Diamond and Orenstein, *Reweaving the World*. In this book the authors state that they specifically designed their multi-disciplinary ecofeminist anthology to be "a chorus of voices reflecting the variety of concerns flowing into ecofeminism". See: Irene Diamond and Gloria Feman Orenstein, *Reweaving the World: The Emergence of Ecofeminism* (San Francisco: Sierra Club Books, 1990), vii. Cited in: Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 110.
[166] Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 131.

enrich theory in a cyclical and compassionate process.[167] Rethinking the world in the way that Grey suggests is characteristic of ecofeminist analysis; it "involves recognizing our responsibility in the destructive process" that is "within the realities of environmental destruction" and "within economic systems".[168] Ecofeminist theology, like liberation theology, "rethinks the world from the basis of its most marginal categories – poor people, indigenous people, women and children". [169] Thus, ecofeminism is no romantic notion or theoretical escape. On this point, Brazilian ecofeminist Ivonne Gebara is quite clear when she asserts:

> I see that ecofeminism is born of daily life, of day-to-day sharing among people, of enduring together garbage in the streets, bad smells, the absence of sewers, and safe drinking water, poor nutrition and adequate health care. The ecofeminism I see is born of the lack of municipal garbage collection, of the multiplication of rats, cockroaches, and mosquitos, and of the sores of children's skins.[170]

Whether in a poorer nation like that from which Gebara writes or in a more prosperous one, the message of ecofeminism is patent. It is a theological stance of radical engagement and responsibility. No longer can nature form the backdrop of human existence. For, as Grey says, "knowing the world, is knowing ourselves as nature, as survivors with nature, thinking, feeling, celebrating and suffering together, deeply caught up in the longing for mutual flourishing, especially where it is most threatened".[171]

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[167] Heather Eaton describes the praxis of ecofeminist theology, as "a plunge into the place of struggle for change, where the powers of the governing ideology defy confrontation and retaliate". See: Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 109. Such praxis has at times called for the ultimate in personal sacrifice. Indeed, very recently, 74 year-old Sister Dorothy Stang, a School Sister of Notre Dame a committed environmentalist was shot and killed for her peaceful support of local people in Sao Paulo, Brazil, protesting the destructive activities of illegal loggers and landowners. Her murder has been compared to that of the environmental activist, Chico Mendes, who in 1988 was killed for his attempts to protect the Amazonian rainforest.
[168] Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 132.
[169] Ibid.
[170] Gebara, *Longing for Running Water*, 2.
[171] Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 133.

Thinking of the world in this way has also led to new ways of thinking about the human person. The vision, as Radford Ruether sees it, must start with a principle of equity between men and women who see themselves as responsible integrated body-spirit organisms; "between human groups in particular regions; equity across human communities, globally; equity between human species and all other members of the biotic community of which we are a part and equity between generations of living things, and between those alive presently and those yet to come".[172] A vision like this is affirming of the self and yet it debunks the myth of individualism and of the notion of survival as that of individual survival. Like process thought, it suggests "person-in-community", where community is understood to exceed the limits of human community embracing the community of all life, and where the notion of present and future is transcended. This means, says Grey, that humans take seriously Christ's call to lose self in order to find it.[173]

The theological significance of these insights on the nature of knowledge, the world and human persons is that for many feminist theologians it has become impossible to conceptualize God in traditional ways. A rethinking of the mystery of God is also needed, for as we have seen traditional notions of God rest firmly in a patriarchal context

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[172] Radford Reuther, *Gaia and God: An Ecofeminist Theology of Earth Healing*, 258.

[173] Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 134. Grey also suggests here that such a conception of the human person requires a re-reading of Scripture in the light of ecological destruction. She recommends the Earth Bible series edited recently by Norman Habel, a recommendation with which I concur. This series provides guidance on reading the biblical text from the perspective of the Earth. The contributions offered by a wide range of influential scholars yields invaluable insights. In his introduction to the first volume Bishop Desmond Tutu states, "I hope that the promise of 'peace on Earth' will be advanced by this laudable project as scholars probe our heritage to understand and assist in resolving the crisis of our planet". See: Norman C. Habel, ed., *Readings from the Perspective of Earth*, vol. 1 (Sheffield: Sheffield Academic Press, 2000). Norman C. Habel and Shirley Wurst, eds., *The Earth Story in Genesis*, vol. 2 (Sheffield: Sheffield Academic Press, 2000). Norman C. Habel, ed., *The Earth Story in Wisdom Traditions*, vol. 3 (Sheffield: Sheffield Academic Press, 2001). Norman C. Habel, ed., *The Earth Story in the Psalms and the Prophets*, vol. 4 (Sheffield: Sheffield Academic Press, 2001). Norman C. Habel, ed., *The Earth Story in the New Testament*, vol. 5 (Sheffield: Sheffield Academic Press, 2002).

from which dualistic beliefs and behaviors of domination have evolved. Thus, the concept of God simply as Father is unacceptable.[174] God, the Creator and Sustainer of all life, is not the transcendent God of dominant traditional theology. God is immanent in creation as well as transcendent – "not separate from and not confused with its sacred gift events".[175] Ruether believes that all ideas of God as one with power over creation must be abandoned in favor of the "Holy Spirit, who is the ground of being of creation and the new creation".[176] McFague wants, as do many feminist theologians and women more generally, to reconstruct the Christian models of God in a way that portray the feminine aspect of God found in Scripture and known through experience.[177] For McFague it is critical to explore the metaphor of the world as God's body, a body to which "God is present as mother, lover, and friend of the last and the least in all of creation".[178] Now our abuse of the world becomes a sin against God's body.[179]

Reflecting on the wide scope of feminist thought, Radford Reuther warns, however, against a mere replacement of the concept of a male transcendent God with an immanent female one. This does not solve the problem of God's relationship with creation, she claims. Instead she proposes "a vision of a source of life that is 'yet more' than what presently exists, continually bringing forth new life and new visions of how life should be more just and more caring".[180]

Noticeable about the conceptions of God proposed by ecofeminist theologians is that they are all grounded in a notion of relationship. Many, therefore, image God as

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[174] Deane-Drummond, *A Handbook in Theology and Ecology*, 58.
[175] Anne Primavesi, *Sacred Gaia* (London: Routledge, 2001), 179.
[176] Radford Reuther, *New Woman: New Earth*, 80. Cited in: Deane-Drummond, *Ecology in Jürgen Moltmann's Theology*, 29.
[177] McFague, *The Body of God.*
[178] Ibid., 87.
[179] Ibid., 113.
[180] Radford Reuther, *Gaia and God: An Ecofeminist Theology of Earth Healing*, 4-5.

Trinity and thus of Relational Being. All persons of the Trinity are in loving relationship with creation. Indeed, creation reflects the Trinitarian God. Closely linked to reflections on Trinity are conceptions of the person of Christ in feminist thought. There is stress on the incarnate Christ as part of sacred material creation. Jesus shares in the material unity of creation. He was dependent on the Earth like all other humans and living beings. The thinking, however, goes beyond the humanity of Christ, for he is also the Cosmic Christ who brings healing and "offers the hope of the resurrection to all of creation".[181] The human task is to become the image of Christ, for Christ is the perfect image of God referred to in Genesis 1:27. Jesus Christ exists in loving relationship with the other two persons of the Trinity, so too should humans live in loving relationship with one another and with all of creation.[182] These relational accounts of God in feminist theology then underlie the deep and lively commitment to the community of all life that is the spirit of ecofeminism which, like that of liberation theology, believes in the God who hears the cry of the poor - the poor, that as Sallie McFague reminds us, now includes the Earth.[183] It is clearly not possible in an overview of this kind to convey the breadth and depth of feminist thought, especially with respect to concepts of God and the richness of women's Christologies. It is my hope, nonetheless, that the points highlighted here will provide some sense of the immense contribution that has been made to ecotheology by feminist theologians.

New Biblical Scholarship: Its Contributions to Ecotheology

The more recent theological reflections that I have described above owe a great debt to new biblical scholarship. Beginning in the nineteenth century, the

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[181] Deane-Drummond, *A Handbook in Theology and Ecology*, 63-64.
[182] Ibid., 64.
[183] McFague, *The Body of God.* See also: Grey, *Sacred Longings: The Ecological Spirit and Global Culture*, 136.

application of historical methods to study the cultural contexts of biblical writing helped free scriptural interpretation from the literalism of the past. It has permitted broader understanding of many biblical themes, not least those associated with creation.[184] The biblical writers explore the complex web of relationships in creation. Further, as Old Testament scholar Ellen Davis makes clear, "they help us see the degree to which our relationship with God is bound up in our relationships with other creatures whom God has made". She continues, "Reverence for the Earth and reverence for God cannot be separated".[185]

Throughout the Hebrew Scriptures God is celebrated as Creator of all things. Not only is this evident in the creation stories of Genesis but it also permeates the rest of the Torah, Prophets, Proverbs and Psalms. The Bible affirms the goodness of God's creation (Genesis, 1:11). The biblical prophets call us to righteousness, that is, to right relationships with God and neighbor – the wholeness and wellbeing of *Shalom* (Isaiah 11:1-9). Walter Brueggemann writes of this wellbeing as extending to a whole community that embraces "young and old, rich and poor, powerful and dependent". We stand together, he says, "before God's blessings and together we receive the gift of life if we receive it at all. *Shalom* comes only to the inclusive, embracing community that excludes none."[186] In our present situation the Bible's prophetic call to us may be that the most vital inclusion into our community of wellbeing and care is that of God's wider creation.[187]

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[184] For a thorough review of Biblical texts with commentary that provide insights for a theology of creation see: Frederick W. Kreuger, ed., *A Nature Trail through the Bible* (Santa Rosa, CA: The Religious Campaign for Forest Conservation, 2002).
[185] Ellen F. Davis, *Getting Involved with God: Rediscovering the Old Testament* (Cambridge and Boston, MA: Cowley Publications, 2001), 182-83.
[186] Brueggemann, *Living toward a Vision: Biblical Reflection of Shalom*, 16.
[187] Davis, *Getting Involved with God: Rediscovering the Old Testament*, 187.

Biblical scholars have also plumbed the depths of many important themes that provide theological insights for our reflections on the human/God/Earth relationship. In the first creation account in Genesis (the Priestly Source), they have looked for clearer meaning in its assertion that humanity, male and female, is made in the Image of God, to "exercise dominion" over other creatures and to "subdue" the Earth. (Genesis 1:26-27). Dominant anthropocentric interpretations of this text, which took these verses to mean that the value of creation is determined by its usefulness to humankind, have been rejected. For the Bible is very clear that "the Earth is the Lord's" (Psalm 24:1). Thus, while the first humans may have been told to have dominion and subdue, "they were not autonomous in their governance". Rather, this text is to be understood in terms of a benign stewardship. Humans are accountable to God in their relationship with the rest of creation.[188] Human beings, says Ellen Davis, are "given a weighty honor and responsibility of respecting God's benevolent dominion, [commonly described as stewardship] in the world, in standing up for God's interests in the face of every threat. They are to stand for God even against the threat of their own short-sighted self-interest."[189] Biblical scholars have also applied an ecological hermeneutic to the second creation narrative (the Yahwist). In this account God formed the human being ['*adam*], dust from the fertile soil ['*adamah*] (Genesis 2:7). "God took [the man] and put [him] in the Garden of Eden to till and to keep it" (Genesis 2:15). Thus the human being has a vocation and responsibility for the care of the Earth but is also to remember s/he is of the

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[188] See: Dianne Bergant, *The Earth Is the Lord's: The Bible, Ecology and Worship* (Collegeville, MN: The Liturgical Press, 1998). In this book Bergant, who is Professor of Old Testament Studies at Catholic Theological Union, provides a helpful reflection on the themes of "dominion" and "stewardship" placing them in the context of ancient Mesopotamian myths and Near Eastern understandings of monarchy. For a detailed text on the topic see: Douglas Hall, *Imaging God: Dominion as Stewardship* (Grand Rapids: Eerdmanns, 1896).

[189] Davis, *Getting Involved with God: Rediscovering the Old Testament*, 188.

Earth.[190] As part of Earth's community of life, humanity is gifted for that life and for responsibilities for creation, but is not superior to other life forms. The prophet Job even tells the people that they are to "ask the animals and they will tell you; ask the plants of the earth and they will teach you; and the fish of the sea will declare to you." (Job 12:7).[191]

In the first six books of the Bible, the land with which God covenants (Genesis 9:15) is the most pervasive theme. As Walter Brueggemann points out, it is so central to these texts that "It will no longer do to talk about Yahweh and his people, but we must speak about Yahweh and his people and his land".[192] The Land is Gift of God, promise of God and it is blessing predicated on Israel's fidelity to covenant.[193] Thus, our relationship to the land has covenantal, that is, ethical implications. The Earth is to be treated with care. Sabbath is to be observed, for example, for the Earth and all living beings including humans (Leviticus 25: 2-7).[194] There is a connection between care for the Earth and justice. Land should be protected and its gifts shared with the poor (Leviticus 19 and Amos 6: 4-6).

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[190] Ellen Davis provides an interesting discussion of this text, seeing in the human vocation, to "till and keep" the garden, a human activity directed toward God. It is in one sense, worship. See: Ibid., 191-95.

[191] This sentiment expressed by Job is very clearly echoed in the spirituality of many indigenous communities.

[192] Walter Brueggermann, *The Land: Place and Gift, Promise and Challenge in Biblical Faith* (Philadelphia: Fortress Press, 1977), 6.

[193] Claus Westermann, *Blessing: In the Bible and the Life of the Church*, trans. Keith Crim (Philadelphia: Fortress Press, 1978).: Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 191.

[194] Jürgen Moltmann in his work develops the theme of Sabbath in some detail, seeing in it, the destiny of creation. See: Jürgen Moltmann, *God in Creation and the Spirit of God*, trans. Margaret Kohl (Minneapolis: Fortress Press, 1993).

In the New Testament, the incarnation and resurrection point to God's love of embodied reality and to the sacredness of material creation.[195] The historical Jesus says Santmire, "can be thought of as an ecological figure as well as an eschatological figure".[196] His life has meanings which transcend personal salvation (Romans 8: 19-23). The kingdom of God witnessed in the life of Jesus and which he proclaimed, is the fulfillment of the vision of *Shalom* in the Hebrew Scriptures. It is a place in which all of creation is freed, reconciled and made whole. It is a new heaven and new earth established through the life, death and resurrection of Christ (Revelation 21:1). Thus, while the eschatological vision of the healing and renewal of creation is yet to be fulfilled, it also illuminates the present and calls for reflection on our human goals and actions.[197] Other Scriptural passages acknowledge that Christ as the Eternal Son of God has a part in creation as well as redemption.[198] Paul writes:

> He is the image of the invisible God, the first-born of all creation; for in Him all things in heaven and on earth were created, things visible and invisible, whether thrones or dominions or rulers or powers – all things have been created through Him and for Him. He himself is before all things and in Him all things hold together (Colossians 1:15-17).

In this letter, as well as in the First letter to the Corinthians (1 Corinthians 8:6), Christ is fully identified with the Creator of all things. Christ, therefore, has a cosmic role which Santmire points out is like that of "Wisdom in Hebraic and later Jewish thought" permeating all things. His rule is with the Father from beginning to end of all creation. He is in this sense, the Father's creative Word (John 1:1)."[199]

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[195] Francis Schaeffer and Udo Middlemann, *Pollution and the Death of Man*, New expanded edition ed. (Wheaton, IL: Crossway Books, 1992), 49-55.
[196] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 201.
[197] Barbour, *Nature, Human Nature and God*, 126.
[198] Ibid.
[199] Santmire, *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*, 205.

Throughout the Bible too, various analogies are used that provide images of God's relationship with the world.[200] God is gardener (Genesis 2:8). God provides fatherly care for creation (the birds and the lilies in Matthew 6: 26, 28-30). God is mother (Isaiah 49: 15 and 66:13) and God is Spirit present in the world (Genesis 1:2 and Psalm 104: 30). Finally, the Scriptures speak of the magnificence and wonder of God's creation (Psalm 104). In turn the moral responsibility of all life, including human life, is to respond to God in praise and worship (Daniel 3:57-88, 56).[201]

"Let all the Earth Bless the Lord" – The Ecological Motif in Worship through the Ages

Through the ages, I believe, it is in praise and worship also that the ecological heart of the Judeo-Christian tradition has been sustained and developed, although perhaps not always consciously so. As described above, many of the texts of Hebrew Scripture, especially the Psalms form a centre point of Jewish worship and Christian liturgy that serve to remind us of the magnificence of creation and of our responsibilities toward it. The Divine Office, one of the major prayers of the churches of Catholic tradition, regularly includes such psalms and canticles of praise and gratitude. Each Sunday morning, for example, the Sabbath and new Christian week is marked by alternating segments of Daniel's great canticle of praise and blessing (Daniel 3:57-88, 56 on weeks 1 and 3 of the breviary cycle and Daniel 3: 52-57 on weeks 2 and 4). This canticle is accompanied during Morning Prayer by the most well-known psalms of wonder and thanksgiving (Psalms, 148, 149, and 150). In the Orthodox tradition, every evening at Vespers, Psalm 103 is sung which proclaims "Bless the Lord, all his works, in

[200] Barbour, *Nature, Human Nature and God*, 102-03.
[201] Richard Cartwright Austin, *Hope for the Land: Nature in the Bible* (Atlanta: John Knox Press, 1988), 49.

all places of his dominion, bless the Lord O my soul".[202] Indeed, the Orthodox Church unlike the Western Church which has tended to stress human sin and mortification of the flesh, has always celebrated the resurrection, and with that a rich celebration of creation and God's love for it. Building on that long tradition, in 1989, the Orthodox Church declared every September 1st, a day to commemorate the gift of creation and to pray for the protection of the natural world.[203]

In Catholic traditions too, the Eucharist forms the center of worship expressing the "transformation of creation through God the Holy Spirit".[204] Each Eucharistic celebration "is a re-entry into the death and resurrection of Christ", says, biblical scholar Dianne Bergant, and with it we are reminded of our relationship to God and the world. She states:

> As we participate in it we are made new. As we leave the celebration, we carry with us the task of re-creating the world in which we live. We are sent forth to remedy the disorder within our personal lives, to rectify the injustice within society, and to reverse the ecological devastation of our world. Having been transformed ourselves, we accomplish this responsibility by living transformed lives. The struggles in living such lives are indeed the labor pangs that precede the birth of the messianic age.[205]

John of Pergamon, the Greek Orthodox Metropolitan, holds the view that humans are "priests of creation". In that sense we can offer not just the Eucharistic bread and wine but all of nature to God. We lift up the material world with us into the reality of salvation and eternal life. "Both Christ and humanity are essential links between God and the world to bring the redemption of all creation", he claims.[206] The blessing prayers of the

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[202] Deane-Drummond, *A Handbook in Theology and Ecology*, 85.
[203] Ibid., 84, 85, 94.
[204] Ibid., 84.
[205] Bergant, *The Earth Is the Lord's: The Bible, Ecology and Worship*, 64. In similar vein, theologian, Monica Hellwig writes of the inseparability of the Eucharistic celebration and the need to respond to world hunger and its global causes. See: Monika K. Hellwig, *The Eucharist and the Hunger of the World*, 2nd. ed. (Franklin, WI: Sheed and Ward, 1999).
[206] Metropolitan John of Pergamon, "Preserving God's Creation," in *Christianity and Ecology*, ed. Elizabeth Breuilly and Martin Palmer (London/New York: Caswll Publishers, 1992). Cited in:

Catholic liturgy reiterate this perspective, "Blessed are you, God of all creation, through your goodness we have this wine to offer, fruit of the vine and work of human hands, may it become our spiritual drink".

In the churches that celebrate a sacrament of reconciliation there has been, in some places, a gradual transition through which those preparing for confession are encouraged to consider not only sin against other humans but also their failings toward creation. Martin Smith, for example, in his book relating to this sacrament as it is understood in the Episcopal (Anglican) Communion, asks the question: "have you been a good steward of what has been entrusted to you, or have you been wasteful or extravagant?"[207]

The rituals and symbols associated with Catholic worship such as incense, holy water candles, crossing oneself and genuflection, if not abused by becoming center stage, also remind us of God's involvement in creation. A rejection of these in some Protestant circles has sometimes reinforced a duality between spirit and matter.[208]

In Protestant traditions, however, there is also a rich reminder of creation. The statement of the creed shared with Catholics acknowledges wholeheartedly a belief in "God the Creator of heaven and earth" and all that implies in the lives of Christians. The coming together, whether for communion services or not, reminds worshipers of their interrelatedness. Might this also extend to our relationships with the Earth? The word of

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Barbour, *Nature, Human Nature and God*, 126. The specific quotation here is taken from the Barbour reference.

[207] Martin L. Smith, *Reconciliation: Preparing for Confession in the Episcopal Church* (Cambridge, MA: Cowley Publications, 1985), 93.

[208] Deane-Drummond, *A Handbook in Theology and Ecology*, 89.

scripture as noted above, which is so central to many forms of Protestant worship, abounds with praise for creation and reminds us of our responsibilities in its regard.

Even beyond these formal modes of worship the prayers of Christians through the centuries have been intimately linked to God's creation. Historically, Christianity has taken over some of the festivals and worship places of the pagans. Although the intended aim of this was to quash the influence of pagan beliefs, it nonetheless served to incorporate into the Christian tradition, some "earthly themes".[209] The beauty of the natural world has often provided the worship space for believers. This is especially evident from accounts of the Celtic Church.[210] The Cyclical nature of the Church's liturgical year mirrors the seasons of the natural world. Various Christian rituals such as rogation days and harvest festivals remind the faithful to pray for God's protection for the world and to give thanks for the fruits of the Earth. In recent years some churches have begun an annual service of blessing for animals to celebrate the feast of Saint Francis. Communities, such as the Iona Community have produced prayers and reflections for today based on the Celtic tradition.[211] Similarly, others have sought to renew liturgical celebrations and devotions so that they proclaim a "cosmic covenant". Sean McDonagh suggests, for example, some integration of indigenous people's rituals of seasons and life-cycles into the liturgical celebration of the Christian mysteries. For McDonagh this includes a corresponding call for a turn to a more simple sacramental life which reflects

[209] Ibid., 83. While this has led to a great richness in Christian worship it has also instilled certain wariness in some people's minds that the prayer that emphasizes nature is somehow pagan in nature, that it reflects pantheistic underpinnings or is "New Age".

[210] A story is told for example, that the Irish saint, Colum Cille, celebrated mass, beginning the service out of doors, only entering a small nearby church for the act of consecration with other priests. It is assumed that the rest of the congregation remained outside for communion. This is similar to the use of screened sanctuaries in the orthodox tradition. See: Low, *Celtic Christianity and Nature: Early Irish and Hebridean Traditions*, 3-4.

[211] See for example: Neil Paynter, ed., *This Is the Day: Readings and Meditations from the Iona Community* (Glasgow: Wild Goose Publications, 2002).

our place in the universe.[212] Today, it is encouraging to see new worship responses emerging. Sometimes this simply involves the inclusion of relevant issues in the prayers of intercession during Eucharistic celebrations or recognition of such issues during homilies at Sunday services. Others have gone further and have developed explicit liturgies which express better the beliefs and values pertaining to the God/world/human relationship. The World Wildlife Fund, for example, has sponsored the development of such liturgies for harvest time, Advent, Christmas and Easter, and it has also helped produce worship initiatives with other faith communities such as Buddhists, Muslims and Hindus. Celia Deane-Drummond includes some examples of such liturgies in her *Handbook in Theology and Ecology*, as well as providing some suggestions of her own for writing ecological liturgies.[213] Finally, on International Earth Day, which is held on April 22nd each year, local interfaith groups have come together for sunrise services through which participants give thanks for the gifts of the Earth and during which prayers are offered for global wellbeing and fruition. The examples above and others show that the act of worship, grounds, embraces and raises-up the richness of centuries of religious ecological tradition that holds out hope for the future.

The Christian Tradition as Promise

The Christian ecological tradition, as I have attempted to show, has at times been strong, and in some epochs even dominant. At other times it has been thin, and through the ages it has always tended to be ambiguous. At the birth of bioethics, the Christian ecological tradition was barely acknowledged and clearly not applied by those theologians who played such a role in the evolution of the discipline. Perhaps this is not surprising, for the Church is at one significant level a people of its age, gifted and

[212] McDonagh, *Passion for the Earth*, 147-54. See also: McDonagh, *To Care for the Earth: A Call to a New Theology*, 69-86 and 154-68.
[213] Deane-Drummond, *A Handbook in Theology and Ecology*, 91-97 and 148-64.

affected by that age, sometimes deluded by the age, but called, nonetheless, to engage in the times. The Church did engage in the early development of bioethics. It contributed much that was helpful and good but it did not employ the rich ecological fullness of its tradition in its endeavors. Today, its voice has been all but lost in the world of bioethics. Yet the Church continues to be called to prophecy, rooted in a counter-cultural stance. Rarely has that call been as strong as it is today, as the cry of the Earth and the cry of the poor, in conjunction with global health concerns, challenge the Church and its theologians. It is a challenge that at last is being taken seriously as all the major churches begin to respond to the current crisis with the richness of their ecological traditions. Already those responses are helping to forge new moral insights for our time. I will argue in the next chapter that such insights represent the beginnings of a strong moral foundation that holds great potential for a renewal of bioethics; a renewal in which theology, with its ecological promise as detailed in this chapter, has unparalleled opportunity to participate.

CHAPTER FOUR

DEVELOPING A NEW MORAL FOUNDATION FOR BIOETHICS

The only acceptable way for humans to function effectively is by giving first consideration to the earth community and then dealing with humans as integral members of that community. **Thomas Berry: The Ecozoic Era**

"In our day, there is a growing awareness that world peace is threatened not only by the arms race, regional conflicts and continued injustices among peoples and nations, but also by lack of due respect for nature, by the plundering of natural resources and by a progressive decline in the quality of life."[1] With these words, Pope John Paul II began the first of his addresses to be exclusively devoted to environmental issues in which he called attention to the ecological crisis and its broad impact on the wellbeing and health of humankind.[2] The "ecological crisis" he said, "is a moral issue", one that

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[1] Pope John Paul II, "Peace with God the Creator, Peace with All of Creation," in *World Day for Peace Message* (Washington, D.C.: United States Catholic Conference, 1990), #1.

[2] Earlier writings, homilies and speeches of Pope John Paul II, although not primarily focused on environmental issues did, however, contain reference to them. In the first encyclical of his papacy, for example, he began to outline a theological vision for right relationship with creation. In the encyclical, the Pope referred to the ancient Christian understanding of the role of humanity as that of "earth's guardian". Humans, he said were not to become "heedless exploiters" and "destroyers" of the earth. See: Pope John Paul II, *Redemptor Hominus* (Boston: Daughters of Saint Paul, 1979), #15. In his 1981 encyclical, *Centisimus Annus*, the Pope briefly addressed the problem of excessive consumerism and its ecological impacts. Pope John Paul II, *Centesimus Annus* (Boston: Saint Paul Books and Media, 1981), #36, #37. This was a topic he had earlier outlined in a speech during his first visit to the United States. See: Speech in Yankee Stadium, New York City (1979) in: Frederick Krueger, W., ed., *The Ecological Crisis Is a Moral Crisis: A Summary of Pope John Paul 11 on Environmental Responsibility*, revised ed. (Santa Rosa, CA: Religious Campaign for Forest Conservation, 2002), 3. In the encyclical, *Sollicitudo Rei Socialis*, (1988), the Pope expanded on his previous pronouncements. This encyclical reiterated the problems of consumerism and "superdevelopment"(#28). It clearly linked injustice to the poor and environmental destruction (#28). The Christian vocation "which is fully realized in Christ", the Pope said, demands that the "goods and resources of creation" be seen as "gift from God" (#29). The interrelationship between humanity and the rest of creation is emphasized. Although human dominion is stressed, it is to be understood as limited (#29). In this encyclical Pope John Paul II also develops a moral analysis of ecological problems. He identifies and condemns institutionalized injustice and greed which he calls, "structural sins" (#36-38). He emphasizes that each individual has moral responsibilities to "safeguard nature", to live with simplicity, and to participate in civic activities that contribute to just society (#47). Importantly, the Pope asks individuals to "be convinced of the seriousness of the present moment"(#47). The encyclical above all shows within the magisterial teachings of the Roman Church, an expanding awareness of ecological destruction and its root causes, the same causes that lead to extreme human suffering. It helped lay the groundwork for the more detailed pronouncements on environment and

calls Christians and indeed, "the entire human community" to "take seriously the responsibility that is theirs".[3] Following decades of negligible attention by the churches to the state of the natural world, Pope John Paul's address finally began to acknowledge the magnitude of the problems. In this endeavor, to which he gave some considerable direction, he was not alone among church leaders and Christian organizations. In fact, Sean McDonagh points out that in his 1990 New Year address, *Peace with God the Creator, Peace with all of Creation*, from which the above comments are taken, John Paul II relied quite heavily on the Justice, Peace and Integrity of Creation Program which the World Council of Churches (WCC) had launched at its 1983 Assembly held in Vancouver.[4]

The WCC program continues today. Based on the belief that issues of justice, peace, and environmental protection are inextricably linked, the Justice, Peace and Creation team of the WCC works toward the development of global sustainable communities. The project holds a vision of an "ecumenical Earth" and calls individual Christians, denominations and churches throughout the world to counter attitudes and actions that lead to personal, social and environmental damage.[5] Within recent years numerous churches have begun to respond to such a call, issuing important and promising statements for their members and for society more generally, concerning the

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justice, that became a hallmark for John Paul's later papacy. See: Pope John Paul II, *Sollicitudo Rei Socialis* (Boston: Saint Paul Books and Media, 1988).

[3] Pope John Paul II, "Peace with God: Peace with All Creation," in *World Day for Peace Message* (January 1,1990), #6, #15.

[4] McDonagh, *Passion for the Earth*, 106. Sadly, the Roman Catholic Church has been reluctant to support the World Council of Churches in their work in this area citing ecclesial differences with respect to communion rather than stressing the urgent need for collaborative efforts to address environmental and justice issues.

[5] The Harvard University Center for the Environment has produced an excellent overview of the WCC project. See: Center for the Environment Harvard University, *World Council of Churches: Justice, Peace and Creation* (August 17, 2004 [cited April 4, 2005]); available from http://environment.harvard.edu/religion/christian/projects/wcc_ipc.html. For information regarding ongoing environment and justice initiatives of the WCC see: http:// www.wcc-coe.org

interconnections between environmental and social injustice. Additionally, some have also begun to sketch, albeit minimally, a link between such concerns and our contemporary concepts of bioethics.

In this chapter I will, therefore, examine the key elements of those Church responses. I will suggest that ecclesial initiatives in this regard reflect the important and continuing ecological tradition of Christian theology, presented in the last chapter. From this remarkable tradition the churches of the world have begun to provide a moral foundation in which the inextricable relationship between the health and wellbeing of the environment and the health and wellbeing of humanity is established. They present an ethical foundation that in my view reflects the concept of bioethics proposed by Van Rensselaer Potter and by those more recent writers who maintain, as I do, that what is urgently needed today is an ecological concept of bioethics. If this is the case then the churches now have much to offer from their traditions and from their recent reflections for the formulation of such a bioethics. Is it enough, however? I will go on to suggest that it is not. The churches, I contend, have potentially more to offer to the development of bioethics but if and only if some theological turns are taken. Thus, I will attempt, as I develop this chapter, to articulate one such turn by referring to the work of Catholic priest and cultural historian, Thomas Berry. For, from Berry's work I believe that we have an opportunity to further develop the potentially rich contribution of Christian ethics to the reformulation of bioethics.

Church Response to an Environmental and Social Crisis

Following his early statements on the importance of the environmental crisis and its social correlates, Pope John Paul II continued to emphasize the urgency of the problems. Indeed, as Krueger remarks, "among the religious leaders of the world, John

Paul II has been one of the most ardent and consistent in emphasizing that care of the environment is a basic human duty".[6] In 2002, Pope John Paul was joined by the Ecumenical Patriarch Bartholomew of Constantinople.[7] Together they released a joint declaration in which they stated:

> At this moment in history, at the beginning of the third millennium, we are saddened to see the daily suffering of a great number of people from violence, starvation, poverty and disease. We are also concerned about the negative consequences for humanity and for all creation resulting from the degradation of some basic natural resources such as water, air and land, brought about by an economic and technological progress which does not recognize and take into account its limits.[8]

Christians and all peoples of faith they continued "have a specific role to play in proclaiming moral values in educating people in ecological awareness, which is none other than responsibility toward self, toward others, toward creation"[9].

Similar concern has been expressed and challenge issued by Church leaders worldwide. In 1988, for example, the Roman Catholic Bishops of the Philippines released a particularly strong call to Christians in which they said the environmental crisis is "the ultimate pro-life issue".[10] The Filipino bishops weave together scriptural references with concrete examples of environmental degradation and its effects. They speak for example, of the loss of forests and of accompanying soil erosion and crop diminishment. They stress the loss of waterways, pollution of rivers and oceans and the impact on fishing. Like John Paul II they provide a vision of interdependence in a "relationship

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[6] Krueger, ed., *The Ecological Crisis Is a Moral Crisis: A Summary of Pope John Paul 11 on Environmental Responsibility*, 1.

[7] The Greek Orthodox Patriarch is the spiritual leader of some 300 million Orthodox Christians across the world.

[8] Pope John Paul II and Ecumenical Patriarch Bartholomew, "Joint Declaration on Articulating a Code of Environmental Ethics," *Origins* 32, no. 6 (2002): 81-84, at 81.

[9] Ibid.: 83.

[10] Catholic Bishops' Conference of the Philippines, "What Is Happening to Our Beautiful Land," (Manila: Catholic Bishops' Conference of the Philippines, 1988). The full text of this statement is cited in: McDonagh, *The Greening of the Church*, Appendix 2, 207-16. The direct quotation I have used above is found on page 214.

which links God, human beings and all the community of the living together" in a covenantal communion.[11] Thus, they are clear that "the pain of the Earth" is felt also in the pain of humanity. "We are well aware", the bishops state, that "the scars on nature, which increasingly we see all around us, mean less nutritious food, poorer health and an uncertain future. This will inevitably lead to an increase in political unrest."[12] On the matter of the relationship between environmental degradation and health they are quite explicit. "The air in our cities is heavy with noxious fumes. Instead of bringing energy and life it causes bronchial illness." The toxicity of our waters means that "we in turn are being poisoned when we eat seafood".[13] In response to such immense problems the bishops call for a "new vision" spiritually and morally. Increasingly, "we must recognize that the commitment to work for justice and to preserve the integrity of creation, are two inseparable dimensions of our Christian vocation to work for the coming of the kingdom of God in our times".[14]

The key characteristics of the Filipino Bishops' statement are echoed in numerous other documents emerging from the mainline Churches and their members worldwide. Many other Roman Catholic bishops' conferences, for example, have produced similar statements for their Church members and for more general discussion.[15] The Anglican Communion has demonstrated great commitment to ecological and human justice in their various meetings and documents and through their

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[11] Text of the Filipino Bishop's Statement cited in: McDonagh, *The Greening of the Church*, 213.
[12] Ibid., 208.
[13] Ibid., 211.
[14] Ibid., 213.
[15] National Conference of Catholic Bishops (U.S.A.), "Renewing the Earth: An Invitation to Reflection and Action on the Environment in Light of Catholic Social Teaching," *Origins* 21 (1991): 428-29. Catholic Bishops' Conference of England and Wales, *The Call of Creation: God's Invitation and the Human Response* (2002 [cited April 8, 2005]); available from www.catholic-ew.org.uk/resource/GreenText/. Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," (Ottawa: The Canadian Conference of Catholic Bishops, 2003).

leadership.[16] The Evangelical Lutheran Church as early as 1993 published a social statement on *Caring for Creation: Vision, Hope, and Justice*. In that statement its signatories conclude, "The prospect of doing too little too late leads many people to despair. But as people of faith, captives of hope, and vehicles of God's promise, we face the crisis".[17] The Anabaptist movement through its lifestyle witness and social ministries has provided significant leadership.[18] Orthodox writings provoke serious reflection on environmental and social justice. The Website of the Greek Orthodox Archdiocese of America, for example, includes challenging papers on theology and creation, theological roadblocks to environmental and social commitment, and descriptions of Orthodox ecological initiatives. Orthodox monastic communities like many of their Roman Catholic counterparts have developed strong ecological programs. Some have in particular, launched organic farming and gardening projects to serve as a witness and with a goal toward education.[19] The World Council of Churches and some national church bodies

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[16] In September 2002, a global Anglican Congress on the Stewardship of Creation was held in Johannesburg, South Africa. The General Synod of the Church of England has recently passed a wide ranging "Environment Motion". See: Church of England General Synod, *Synod February 17, 2005* ([cited April 6, 2005]); available from www.cofe.anglican.org/about/gensynod/agenda/bdfeb05thurssdaypm.rtf. Rowan Williams, Archbishop of Canterbury has also recently addressed the important relationship between ecology and economy in a lecture given on March 8, 2005 at the University of Kent. See: Rowan Williams, *Ecology and Economy* (2005 [cited April 7, 2005]); available from www.archbishopofcanterbury.org/sermons_speeches/050308.htm.

[17] Evangelical Lutheran Church, *Caring for Creation: Vision, Hope and Justice* (September 1993 [cited April 7, 2005]); available from www.acton.org/ppolicy/environment/theology/evang_luth.html.

[18] For an excellent description of Anabaptist theology of creation, lifestyle and the environment and commitments toward caring for creation see: Calvin Wall Redekop, ed., *Creation and the Environment: An Anabaptist Perspective on a Sustainable World* (Baltimore: Johns Hopkins University Press, 2000).

[19] See: Greek Orthodox Archdiocese of America, *Environment* (2005 [cited April 9, 2005]); available from www.goarch.org/en/ourfaith/environment/. In the Roman Catholic religious community of which I am a member, a key directional statement emanating from the 2004 congregational chapter reads: "Our charism invites us to respectful awe at the heart of the universe. In that place our call to unity opens us to right relationship with the earth and all creation. We need the guiding principle of inclusive love in discerning these complex realities. We need it, also, to grow in appreciation, love and respect for life in all its forms". (General Chapter, 2004 of the Congregation of the Sisters of Saint Joseph of Peterborough, [Ontario, Canada] directional statement 3). Already, attempts to create awareness of the interconnectedness of all life are apparent in education, and retreat initiatives of the Congregation. Considerations of sustainable energy are calculated into building or renovation projects. One community leads by

have addressed specific issues of practical concern. The World Council of Churches, for example, has produced a statement calling for solidarity with victims of climate change.[20] The General Council of the United Church of Canada has developed a policy statement on energy use.[21] While it is impossible to provide here an exhaustive list of church initiatives what becomes clear from these examples is that across the denominational spectrum there is increasing exploration of the environmental crisis and its human impact, deep theological reflection on the issues, a significant call to Christians to embrace a new ecological vision and to seriously engage in ecological initiatives. These are initiatives that I would call, bioethical.

The call of the churches is largely founded on a vibrant retrieval of the ecological motif present, as I have described in the last chapter, from the very beginnings of Christianity. Themes from the Christian tradition, and many also found in the rich traditions of other faith communities, are recurring in the documents of all the churches. These themes are well summarized by the Roman Catholic bishops of England and Wales:

- The intrinsic value of life itself independent of its utility to humankind;
- The revelation of God in the beauty, diversity, gift and nourishing, life-giving properties of creation;
- Human dependence on and responsibility for creation (here the motifs of *imago Dei*, covenant, co-creativity, and stewardship are apparent, if not always explicit, in the bishop's statement);
- The distortion of the human relationship with the natural world reveals human sin;
- Creation participates in human redemption;

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example in organic gardening and offers pieces of land to neighbors for that purpose. A course, offered in conjunction with Regis College at the University of Toronto, led by Sister Linda Gregg, C.S.J. and called "Village Earth", combines theological reflection, spirituality, global ethics and the skills of organic gardening. Many other religious congregations throughout the world are establishing similar initiatives.

[20] World Council of Churches, *Solidarity with Victims of Climate Change Justice Peace and Creation: Updated Ecumenical Statement* (Geneva: World Council of Churches, 2002).

[21] United Church of Canada Division of Mission in Canada, *Energy in the One Earth Community: Current Challenges and Future Options for Energy Use in the Canadian and Global Contexts* (Etobicoke: United Church of Canada, 2000).

- Creation participates in the world to come – through creation we are afforded a vision of the new heavens and the new earth thus, in our present life we are "partners in God's creative enterprise".[22]

From these themes the churches in their various modes of expression and ministry have begun to reiterate, and in some respects to newly articulate, a moral foundation for today.

The Churches and the Articulation of a Moral Foundation

While largely continuing to embrace an anthropocentric worldview and limited notions of stewardship, points to which I will return in this chapter, the churches have nonetheless, begun to present a very helpful moral foundation for our time. There are some key characteristics of this foundation. From a sense of reverence for God's creation, acknowledgement of divine immanence, and of creation's expression of the divine, the mainline churches have unanimously proclaimed a vision of the world that is "incipiently ecocentric".[23] Thus, the natural world is to be treated with deep respect and gratitude. All human exploration, planning, deliberations and actions must take account of the wellbeing of the planet. We are called, said John Paul II, to "ecological conversion" which is needed "to protect the fundamental good of life in all its manifestations".[24] He is clear that, "Respect for life and for the dignity of the human person extends also to the rest of creation".[25]

Interestingly, it seems to me, a life ethic expressed in this way begins to form a bridging between what has previously been seen as bioethics and the separate

[22] Catholic Bishops' Conference of England and Wales, *The Call of Creation: God's Invitation and the Human Response*
[23] Smith, *What Are They Saying About Environmental Ethics?*, 80.
[24] This call for "ecological conversion" was issued in a general audience given by Pope John Paul II at the Vatican on January 17, 2001. Cited in: Krueger, ed., *The Ecological Crisis Is a Moral Crisis: A Summary of Pope John Paul 11 on Environmental Responsibility*, 32.
[25] John Paul II, "Peace with God the Creator, Peace with All of Creation," #16.

concerns of environmental and social ethics. Although not always made explicit, the ecological emphasis of many of the Church documents show signs of a more integrated notion of bioethics. Thus John Paul II, while reflecting on a life ethic in the context of traditional topics in Catholic bioethics such as abortion, euthanasia and genetic engineering, sought to establish their essential connection to other issues. Respect for life he indicated, is also about protecting the environment so that future generations of all species might have life.[26] He was deeply concerned about the various manifestations of environmental degradation, species extinction, wilderness preservation, eco-destructive agricultural practices, and access to public lands.[27] He was committed to global survival. He also understood a life-ethic to oppose violence in every form, the violence of poverty and hunger, the violence of armed conflict, weapons proliferation, capital punishment, of drug trafficking and racism. Moreover, such an ethic is also concerned, John Paul II said, about those who are especially vulnerable in our communities, the handicapped and the terminally ill.[28] In his beautifully moving *Letter to the Elderly*, he used the natural imagery of the seasons to reflect life's journey and he wrote in prayer of the importance of accepting death in the light of life.[29] For, as a recent paper issued by the International Theological Commission makes clear, "Disposing of death is in reality the most radical way of disposing of life".[30] This is a point that I believe has great relevance for our

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[26] Ibid., #6.

[27] Krueger, ed., *The Ecological Crisis Is a Moral Crisis: A Summary of Pope John Paul 11 on Environmental Responsibility*, 12.

[28] These wide-ranging issues were raised by John Paul II in a speech entitled *Seek a Culture of Life, Not Death*, delivered in St. Louis, January 1999. Cited in: Ibid., 28-29.

[29] Pope John Paul II, *Letter to the Elderly* (October 1, 1999 [cited April 12, 2005]); available from www.vatican.va/holy_father/john_paul_ii/letters/documents/hf_jp-ii_let_01101999_elderly-en.html.

[30] International Theological Commission, "Communion and Stewardship: Human Persons Created in the Image of God," *Origins* 34, no. 15 (2004): 233-48 at 48. The International Theological Commission is a body of 30 international theologians charged with the task of advising the Vatican Congregation for the Doctrine of Faith. I have found parts of this specific paper of the group helpful in showing an integration of environmental, social, and medical issues within a coherent moral foundation. Nonetheless, this particular body has also been responsible for contributing to some significant theological 'crackdowns' within recent years, some of which, in my view, may have impeded the work of theologians and dedicated ministers, work that was vital in

understandings of an integrated bioethics, one to which I will return in my later discussions of a theory and practice of bioethics. What is of particular note at this point, however, is the fact that throughout John Paul's speeches and writings on an ethic of life he presented a seamless whole, incorporating environmental, social, technological and medical concerns.[31] This, I believe, begins to look very much like a critical facet of an integrated concept of bioethics.

In similar vein important works produced by members of other Christian denominations and by inter-denominational groups reflect an integrated ethical content and process. While not necessarily agreeing with all the moral conclusions pertaining to life drawn from such integration by John Paul II, other groups nonetheless, also stress the inextricable connections that form an integrated moral foundation.[32] An excellent

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the light of environmental and social oppression. An example of this is the Commission's part in creating the foundation for Vatican opposition to Liberation theology in the 1980's. For a balanced comment on this see: Leonardo Boff and Clodovis Boff, *Introducing Liberation Theology*, trans. Paul Burns (Maryknoll, NY: Orbis Books, 1987).

[31] This seems to be the case even in John Paul's encyclical that is specifically concerned with "the value and inviolability of human life", *Evangelium Vitae*. See: Pope John Paul II, *Evangelium Vitae* (London: Catholic Truth Society, 1995).

[32] Most would not accept, for example, applications of the natural law that ground such Roman Catholic arguments. Most would reject traditional Catholic stances pertaining to contraception that are closely linked with broader issues in John Paul's analysis of a life ethic. Some others would challenge classic Roman Catholic arguments relating to the status of the embryo and thus, arguments concerning termination of pregnancy, reproductive technologies and embryonic stem cell research. In some of these objections they would be joined by numerous Roman Catholics who today struggle with certain applications of traditional theology while not rejecting the foundational theological position itself. Many point to apparent contradictions in magisterial teachings, teachings that in turn seemingly erode the integrated approach presented in major ecclesial documents. There is, for example, a difficulty for a nascent Roman Catholic ethic of the environment linked to social concern, in a Church that continues to avoid the question of population expansion because of its authoritative stance on birth control. See: Smith, *What Are They Saying About Environmental Ethics?* , 86. Interestingly, this issue was of great concern to André Hellegers, founding member and first director of the Kennedy Institute of Bioethics at Georgetown University. Invited to be the Deputy Director of the Papal Birth Control Commission (1964-1966) established by Pope Paul VI, and Director of its Medical Committee, Hellegers was profoundly disappointed when in 1968, the Pope rejected the findings of the Commission majority. Instead, Paul VI upheld the traditional condemnation of all methods of birth control other than the so-called rhythm method. See: Pope Paul VI, *Humanae Vitae: On the Regulation of Birth*, Study Club ed. (Glen Rock, NJ: Paulist Press, 1968). Hellegers, a committed Roman Catholic, found in this refusal to alter teaching in the light of theological debate and new scientific evidence, deep contradiction between the dogmatic position of the Church and its clear concerns for social justice

example of such integration is found, for example, in a discussion booklet, *Becoming Human: on Theological Anthropology in an Age of Engineering Life*, prepared by the Commission on Faith and Witness of the Canadian Council of Churches. In this document which begins with reflections on God as Creator of all that is, human nature and relationship with God, sin and redemption, issues of scientific and technological progress are necessarily linked to environmental concerns.[33] Similarly, in 1999, the Anglican Consultative Council authorized the setting up of a new office within the mandate of the Anglican Communion Office. Under the heading of "Ethics and Technology" the office assists the Communion to address ethical issues raised by the global environmental crisis and by the emergence of new technologies, particularly biotechnologies. In this initiative, the Anglican Communion makes it quite explicit that its two major areas of focus cannot be separated:

> On reflection it seems that these two areas are linked by a common concern for the impact of technology. Many of our current environmental problems are side effects of the technologies that we rely on for so many aspects of our daily lives. At the same time, some of the most challenging technological developments are in the new biological and genetic technologies. These new technologies bring the

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and human wellbeing. See: Reich, "The "Wider View": Andre Helleger's Passionate, Integrating Intellect and the Creation of Bioethics," 37-41. For an excellent discussion of the Commission see: Robert McClory, *Turning Point: The inside Story of the Papal Birth Control Commission, and How Humanae Vitae Changed the Life of Patty Crowley and the Future of the Church* (New York: Crossroad, 1995). Van Rensselaer Potter also took issue with the position of the Roman Catholic Church on population control. He strongly condemned the Pope for "advocating a course irrevocably committed to irresponsible and, indeed, miserable survival in terms of net results" because of his continuing position on contraception. See: Potter, *Global Bioethics: Building on the Leopold Legacy*, 50. Very recently, Hans Küng has re-iterated such concerns about apparent contradictions in papal teaching. Referring to the recent papacy of John Paul II, Küng also sees the continued stance on birth control as reprehensible in light of mass poverty and suffering in the world - the very conditions that the Church purports to care about and which it maintains are inseparably linked to environmental destruction in terms of both cause and effect. Küng sees similar problems with respect to the Church's continued oppression of women despite its talk of human rights and its condemnation of poverty. See: Hans Küng, "The Nine Contradictions of Pope Paul 11," *Toronto Star*, April 3, 2005, D 1, 10. Thus, while the writings of the Roman Catholic Church present a remarkable example of integration in understandings of a life ethic, some view its authoritative actions as, at times, compromising the integrity of such statements.

[33] Canadian Council of Churches: Commission on Faith and Witness, *Becoming Human: On Anthropology in an Age of Engineering Life* (Toronto: Canadian Council of Churches, 2005). Founded in 1944, The Canadian Council of Churches is formed by 19 church groups of the Anglican, Eastern and Oriental Orthodox, Protestant and Roman Catholic Traditions. It is thus, widely ecumenical and representative in its deliberations, publications and actions.

promise of significant benefit but they also involve risks, often, environmental risks.[34]

Not only does the above statement affirm an integrated notion of ethics, it also highlights a moral attitude regarding the development and use of technology that is a common feature of recent ecclesial reflections. That is, in consideration of the ethical issues surrounding new technologies, while their benefits are to be valued and fostered, any moral calculus regarding them must also simultaneously, take account of their potential environmental and human footprint.[35] At first sight this viewpoint may be seen by some to represent an anti-technological, anti-scientific posture on the part of the churches. While not wishing to deny that such negative positions have existed in the past, a few continuing today, I do not believe that recent church documents generally support such a position.[36] Indeed, most are very clear that the scriptural concepts of *imago Dei* and stewardship require a Christian commitment to development, including technological and scientific development. "Our creativity itself is part of what is image of God in us", states the Faith and Witness Commission of the Canadian Council of Churches, scientific and technological creativity included.[37] Reflecting similarly, Pope John Paul stated:

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[34] Anglican Consultative Council, *Ethics and Technology: An Initiative of the Anglican Consultative Council That Strives to Safeguard the Integrity of Creation and Sustain and Renew the Earth* (Anglican Communion Office, 2004 [cited April 14, 2005]); available from www.aco.org/ethics_technology/.

[35] International Theological Commission, "Communion and Stewardship: Human Persons Created in the Image of God," 235.

[36] Clearly, today's Creationists who espouse a literal interpretation of the Bible deny the grounds of evolutionary science accepted in various forms by most Christians and their churches. For a description of the development of modern creationism and a critique of the movement see: Ronald Numbers, *The Creationists* (New York: Knopf, 1992). Additionally, Celia Deane-Drummond points out that the despite the significant and influential contributions of the Eastern Orthodox Tradition to the ecological platform, there are, in some of that tradition's works, a marked negativity toward scientific potential. She cites, for example, the work of Paul Evdokimov See: Deane-Drummond, *Ecology in Jürgen Moltmann's Theology*, 36.

[37] Canadian Council of Churches: Commission on Faith and Witness, *Becoming Human: On Anthropology in an Age of Engineering Life*, 6.

> Many recent discoveries have brought undeniable benefits to humanity. Indeed, they demonstrate the nobility of the human vocation to participate *responsibly* in God's creative action in the world.[38]

So involvement in scientific and technological development is an important part of the Christian call but notably, the emphasis on responsibility with respect to participation in modern science and technology is a key component of church statements on the topic. To be made in the image of God and to be responsible stewards of God's creation also call Christians to awareness and care in their creative capacities.[39] Christians must engage in development within the context of their faith tradition and thus, in terms of their relationship with God, the natural world generally, and with other humans. This means firstly, an acknowledgement of the limits of the scientific paradigm and of our capacities of analysis and interpretation.[40] Quaker scientist, Ursula Franklin states the problem well when she says, "Today scientific constructs have become *the* model of describing reality rather than *one* of the ways of describing life around us".[41] Valuable though it is in our world, more than science is needed. A fundamental ethic requires:

> a constant effort to synthesize knowledge and to integrate learning. Of course, the successes that we see are due to the specialization of research. But unless this is balanced by a reflection concerned with articulating the various branches of knowledge, there is a great risk that we shall have a 'shattered culture', which would in fact be the negation of true culture. A true culture cannot be conceived without humanism and wisdom.[42]

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[38] John Paul II, "Peace with God the Creator, Peace with All of Creation," #6.
[39] International Theological Commission, "Communion and Stewardship: Human Persons Created in the Image of God."
[40] Pope John Paul II, "Lessons of the Galileo Case," *Origins* 22, no. 22 (1992): 370-75. See also: John Paul II and Bartholomew, "Joint Declaration on Articulating a Code of Environmental Ethics," 83.
[41] Ursula M. Franklin, *The Real World of Technology*, Revised ed. (Toronto: Anansi Press, 1999), 31.
[42] John Paul II, "Lessons of the Galileo Case," 371.

A basic humility with responsibility is needed so that all sides have an informed awareness of the scope of their own field of knowledge and expertise and of "the limits of their own competencies".[43] An ethic of this kind calls for a trans-disciplinary approach.

A responsible approach to scientific and technological development also requires Christians to reflect on the potential consequences of their actions. Thus, the Anglican Bishops meeting at Lambeth in 1998, after noting the invaluable contribution of modern science and technology, go on to highlight some of the negative or potentially problematic consequences of such development. They name, in particular, the detrimental impact of changes in agricultural and manufacturing technology which have led to worker displacement, unemployment and urbanization, all of which take a heavy toll on health and wellbeing. After speaking of the positive access that new communication technology has made possible they point to its contribution to negative globalization which has been highly destructive of environment and local culture. Globalization of this kind they continue, has intensified division, and increased the gap between rich and poor. Global technological development has also enabled scientists to develop ever more destructive weapons which threaten the stability, peace and survival of the world. While biotechnological developments suggest the prospect of agricultural benefit and the treatment of human disease and incapacity, the Bishops note, that such developments also have the potential to further reduce bio-diversity, risk harmful mutations, manipulate human relationships and ultimately human destiny. Citing various theologians the Bishops call for Christian awareness of the "double edged nature of modern technology". They warn of a misuse of technology that alienates humans from God and God's world and they plead for an approach to development which is marked

[43] Ibid.

by "a sense of cautious responsibility".[44] In these examples too, it seems apparent that the Anglican Bishops provide a comprehensive account of the bioethical, grounded in notions of interrelationship and interdependence.

Similarly, the Catholic Health Association of Canada makes clear that even when considering medical research specifically, such research should be directed not only to the benefit of individuals but also to the "common good and the natural environment".[45] The Canadian Conference of Catholic Bishops concurs. They add, moreover, that in the context of health care generally, and in particular, clinical health care:

> The Church's ministry of healing goes beyond the health care of individuals as such; it extends to the physical and social environment in which people live and work. This means that every Christian is called upon to be an advocate of justice and to help redress those unjust social structures that cause suffering to the disadvantaged groups in society.[46]

Throughout recent Church documents pertaining to bioethics there is then an intentional linking between environment, wealth and poverty, culture, biotechnology, health and illness, human identity and relationship. These links cannot be broken in any coherent spiritual, moral, epistemological or practical framework. While the individual human is to be reverenced, respected, and cared for, this is to be understood in the context of a certain understanding of the common good. The common good here is a concept that embraces other humans, near and far, all other life forms, present and

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[44] Anglican Bishops: Lambeth Conference, *Ethics and Technology* (1998 [cited April 18, 2005]); available from www.aco.org/ethics_technology/new_page_1.htm.
[45] Catholic Health Association of Canada, *Health Ethics Guide* (Ottawa: Catholic Health Association of Canada, 2000), 61.
[46] Canadian Conference of Catholic Bishops: Permanent Council, *Catholic Health Ministry in Canada* (Canadian Conference of Catholic Bishops, 2005 [cited April 18, 2005]); available from www.cccb.ca/Files/PastoralLetterHealth.pdf.

future generations of life, and the biosphere as a whole.[47] Such an inter-relational vision, expressed through the churches, is theologically rooted in belief in God the Creator of all, in the goodness of creation, in the gift of incarnation, human dignity and the intrinsic value of all being and in notions of mutual dependence. It also finds expression in the articulation of human dominion as a limited concept and thus, in Christian understandings of benign stewardship.[48] It is these great themes of the Christian tradition, themes that have at times been theologically sidelined, that now potentially come to the fore in the articulation of a moral foundation for our time and for the future.

It is not only religious tradition however, that perceives such a vision. Contemporary science stresses the "unfathomably organic" nature of the world.[49] Its models, especially those of ecology, demonstrate the interconnectedness and interdependence of all life.[50] Genetic science in particular, highlights biological interconnections between various life forms. Elizabeth Johnson points out that studies of our cosmos and of our origins:

> Coalesce into a picture of the world calling for new interpretations, especially as classical dualisms can no longer be maintained. What, for example, is the proper relationship of spirit and matter if they are in effect the inside and outside of the same phenomena? And – a burning question – what is humanity's place in the great scheme of things?[51]

In short, scientists and theologians who recognize the implications of the interconnectedness of all life, call for a new moral awareness and commitment derivative from that fact. Recent collaboration between scientists and theologians, and contemporary writings of scientist-theologians give great impetus and vitality to that

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[47] See for example: John Paul II, *Sollicitudo Rei Socialis*, #26. See also: John Paul II, *Evangelium Vitae*, #42.
[48] See for example: Evangelical Lutheran Church, *Caring for Creation: Vision, Hope and Justice* ([cited).
[49] Johnson, "The Cosmos: An Astonishing Image of God," 208.
[50] Elizabeth Johnson, "God's Beloved Creation," *America*, April 16, 2001, 8-12, at 8.
[51] Johnson, "The Cosmos: An Astonishing Image of God," 208.

call.[52] Indeed a hallmark of an ethics of interconnectedness is openness to such transdisciplinary exploration, analysis and mutual advocacy.

Another central feature of such an ethics is a concept of the individual that differs from the dominant Western moral construct. In chapter 1 of this thesis, I indicated through an analysis of contemporary bioethics, that the pervasive modern understanding of the individual is of the person defined in terms of his or her rights. This often takes on an absolutist and legalistic character with little if any regard for other humans, let alone for any wider notion of a community of life. Such an understanding is untenable, however, from a perspective of the interconnection and interdependence of all life. Thus, church leaders, theologians and scientists who write out of an holistic vision of the cosmos necessarily challenge a central tenet of today's Western world and of its moral framework. The concept of the individual that they present favors more a notion of "person-in-community" similar to that, as we have seen in the last chapter, espoused in process thought. To say this does not mean, however, that those who assert an ethic of interconnectedness, devalue the individual person or the particularity of each entity, or that they fail to recognize the importance of the strides that have been taken in this century towards respecting the rights of individuals. Brian Swimme and Thomas Berry put it well when they claim that:

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[52] See for example: Ian Barbour, *Religion in an Age of Science*, 2 vols. (San Francisco: Harper and Row, 1990-91). Ian Barbour, *When Science Meets Religion* (San Francisco: HarperSanFrancisco, 2000). Celia Deane-Drummond, *Biology and Theology Today* (London: SCM Press, 2001). Celia Deane-Drummond, Robin Grove-White, and Bronislaw Szerszynski, "Genetically Modified Theology: The Religious Dimensions of Public Concerns About Agricultural Biotechnology," in *Re-Ordering Nature: Theology, Society and the New Genetics*, ed. Celia. Deane-Drummond, Bronislaw Szerszynski, and Robin Grove-White (London and New York: T&T Clarke, 2003). Deane-Drummond, *The Ethics of Nature*. Philip Clayton and Arthur Peacocke, eds., *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World* (Grand Rapids: Eerdmans, 2004). Philip Clayton and Jeffrey Schloss, eds., *Evolution and Ethics: Human Morality in Biological and Religious Perspective* (Grand Rapids: W.B. Eerdmans Publishing, 2004). Clifford Matthews, Mary Evelyn Tucker, and Philip Hefner, eds., *When Worlds Converge: What Science and Religion Tell Us About the Story of the Universe and Our Place in It* (Chicago: Open Court, 2002).

> This emphasis on the individual and the personal rights of the individual belongs to the modern world as one of its more impressive achievements. Yet the harmony between the concerns of the individual and the concerns of the community has never been satisfactorily worked out.[53]

Later in this chapter I will go on to discuss Thomas Berry's work and its implications for a new theory of bioethics. At this point, however, I simply point to the fact Swimme and Berry make clear, that the concerns of the community are of central moral relevance in a theology or science that recognizes the essential connections between all of life. How then is this notion of community, to which they and many of the churches allude, to be understood?

It is, I believe, firstly a community that encompasses not only human beings but all other living entities, indeed, the whole biosphere.[54] Ultimately, the whole cannot be sacrificed for the parts. Thus, ecosystems must "come first because they are the foundation of everything else. They should be left intact to continue their biotic processes".[55] Care for the parts that constitute life, human and non-human, is however necessary. For in caring for them, celebrating their diversity of expression, preserving them and enabling them to flourish, and in accepting the fact of struggle and death as essential constituents of the life of each species, the whole of life is honored and sustained. Echoes of this perspective are seen throughout ecclesial writings.[56] Community then is first and foremost the community of all life. It is Earth community. As the Canadian Catholic Bishops note, however, "The cry of the Earth and the cry of the

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[53] Swimme and Berry, *The Universe Story*, 211.
[54] John Paul II, *Sollicitudo Rei Socialis*, #29.
[55] James Martin-Scramm and Robert L. Stivers, *Christian Environmental Ethics: A Case Method Approach* (Maryknoll, NY: Orbis Books, 2003), 27.
[56] See for example: John Paul II, *Sollicitudo Rei Socialis*, #36.

poor are one".[57] Thus, community as discussed in many church documents also embraces specific issues pertaining to human community.

Within an ecological theology, human community is understood to mean the global human community. This finds expression in an ethic that addresses questions about the impact of environmental degradation on the lives of humans. It reflects furthermore, an ethic that asks how the respect and care owed to an individual, the concern for his or her rights, impacts the respect, care and rights to which others are entitled. It is concerned with how the resources available to one person affect the life or wellbeing of others. Similarly, in an ethic which stresses the relational dimension of living as its foundation, concern is expressed as to the ways in which the advantages of one group result in disadvantage or even death for another group. Thus, the extreme consumerist mentality and lifestyle of many has been roundly criticized by the churches. Such criticism is generally based on the Biblical imperative of gift sharing discussed in the last chapter.[58] "Lifestyles of high material consumption must yield to the provision of greater sufficiency of all", the General Council of the United Church of Canada has stated.[59] Proactively, such an ethic, often borrowing the language of liberation theology, affirms the "preferential option for the poor". It affords priority to those who are most vulnerable in society.[60] It is, in the light of present world circumstances, through which the poor and vulnerable suffer disproportionately, an ethics which transcends local and

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[57] Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," #17.
[58] Williams, *Ecology and Economy*
[59] United Church of Canada: 34th General Council, "One Earth Community: Ethical Principles for Environment and Development. A Statement Issued in Response to the United Nations Conference on Environment and Development, Rio De Janeiro, 1992," (Toronto: United Church of Canada, 1992), 3.
[60] Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," #7.

national boundaries. The Canadian Catholic Bishops, referring to healing, highlight this perspective when they say:

> Compassionate generosity is also an important dimension of the Church's far-reaching ministry of healing. Christians are expected to give generously whenever people in distant lands suffer some unspeakable natural disaster, a tragic pandemic infection, or a severe human deprivation. Charity begins at home, but it does not stop there![61]

An ethics grounded in the fact of interrelationship is thus a global ethic. It is global in the sense that I have described above; an ethic that wholly integrates the fragments of our current epistemological and moral paradigms and one that gives primacy in its concerns to the foundations of life itself. It is essentially eco-centric rather than primarily anthropocentric. Its concerns, as I will later discuss, have immense ramifications for the ways in which we construct the theoretical foundations, questions and practice of bioethics. Also relevant for a re-visioning of bioethics, I suggest, are the responses to present global circumstances proposed by some churches.

Three specific responses have been advocated: contemplative, ascetic and prophetic.[62] In a contemplative response each of us is called to deepen our appreciation for the natural world. Through the beauty of creation "we learn to see the Creator".[63] We stand in awe at nature's beauty, wonders and "the never-ending mystery of life and death".[64] This awe-filled stance enables us to perceive the natural world as sacramental,

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[61] Canadian Conference of Catholic Bishops: Permanent Council, *Catholic Health Ministry in Canada* ([cited).

[62] See for example: Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," #15, #16, #17. These three responses are also discussed by theologian Elizabeth Johnson. See: Johnson, "God's Beloved Creation," 10-12.

[63] Pope John Paul 11, "World Youth Day: Cherry Creek Homily (August 14, 1993)," in *The Ecological Crisis Is a Moral Crisis: A Summary of Pope John Paul 11 on Environmental Responsibility*, ed. Frederick W. Kreuger (Santa Rosa, CA: Religious Campaign for Forest Conservation, 1993),

[64] Johnson, "God's Beloved Creation," 10.

"a bearer of divine grace".[65] In seeing creation in this way, we are able to understand it as loved by God for itself, as having intrinsic, not simply instrumental value. We come to understand ourselves as a part of creation charged with special responsibility for its care. Drawing on world-affirming Scriptural and theological resources, we are sensitized to the creation's problems. Our human deliberations are always conducted with reference to the world that sustains us, and we are encouraged "to work for the solutions that our planet and future generations require".[66] A contemplative response thus calls us to something more. As theologian, Sallie McFague points out, "We cannot, in good conscience 'love the world' – its snowcapped mountains and panda bears - while at the same time destroying it and allowing our less well-off sisters and brothers to sink into deeper poverty."[67]

What a contemplative response calls us to, according to McFague, is "cruciform living". Referring to Western society and in particular, to North America, she says:

> Hence, I believe Christian discipleship for twenty-first century Christians means "cruciform living"; an alternative notion of the abundant life, which will involve a philosophy of "enoughness", limitations of energy use, and sacrifice for the sake of others. For us privileged Christians a "cross-shaped" life will not be primarily what Christ does for us but what we can do for others. We do not need so much to accept Christ's sacrifice for our sins as we need to repent of our silent complicity in the impoverishment of others and the degradation of the planet. I am suggesting that the context within which North American Christians should undertake discernment is a cruciform one: the recognition that a *different* way of living in the world is called for.[68]

That "different way of living" to which McFague refers firstly requires, she says, that we see the world differently and then act upon a new vision, one that is in part formed by

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[65] Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," 15.
[66] Ibid.
[67] Sallie McFague, *Life Abundant: Rethinking Theology and Economy for a Planet in Peril* (Minneapolis: Fortress Press, 2001), 14.
[68] Ibid. McFague's ideas here quite clearly have implications for the way in which Christians perceive Eucharist and indeed, she suggests that cruciform living is Eucharistic living in its fullest sense.

reflection on the life of the early Christian community. She sees that community, prior to Constantinian establishment, as made up of "fringe-groups, sects, counter-cultural voices." We must remember, McFague argues, the radical image of Jesus that fired the early Christians. We must recall "the message of the social revolutionary, who upended the conventions of his day, helping people to see a different kind of abundant life." For, Christianity, McFague contends, represents "wild space" – "a place to stand in order to see the world differently, and having seen the difference to act upon it". [69]

McFague's concept of cruciform living flows from such a vision of the Christian life and it closely resembles the ascetic response advocated by some of the churches. While an ascetic response is richly embedded in the Christian tradition, it should be noted that a new asceticism to which the churches refer does not constitute a return to a dualistic and world-negative approach, with which asceticism has often been associated in the past. It is not a "fleeing from the world".[70] Nor is it a glorification of suffering, commonly linked to a theology that is preoccupied with the crucifixion of Jesus without reference to the place of his sacrifice in the wider context of his life, love, healing and teaching.[71] Rather, it is a response to a great love of the world, and thus, a willingness to moderate one's behavior and desires or to sacrifice oneself for it and for the most vulnerable in our midst.

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[69] Ibid., 198. Similar arguments are found in the work, on Christian living for today, of Jesuit priest and peace activist Fr. John Dear: See: John Dear, *Jesus the Rebel: Bearer of God's Peace and Justice* (Lanham/Chicago/ New York and Oxford: Sheed and Ward, 2000).

[70] Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," #16.

[71] This sort of theology has been quite marked, especially in Catholic circles in the past, and I suggest that it endures to this day in some areas of Catholicism and in some Evangelical groups. The prevalence of such a theology may well have been demonstrated, for example, in certain responses to, and interpretations of, the recent box-office movie, "The Passion of the Christ".

Ecumenical Patriarch Bartholomew, for example, says that as Christians we are called to self-restraint – to "make the crucial distinction between what we want and what we need". The "need for an ascetic spirit", he says, "can be summed up in a single key word: *sacrifice*". For, it is "only through our willingness sometimes to forego and to say *no* or *enough* that we will rediscover our true human place in the universe".[72] That true human place is to recognize our belonging to a community, human and non-human.[73]

Other church leaders echo this sentiment, calling for a greater simplicity in living for the sake of the natural world and for other humans.[74] While the churches refer mainly to attitudes or sacrifices a person might embrace that directly impact the environment or that might help alleviate world poverty, I believe that this ascetic concept or cruciform lifestyle holds specific relevance for health care and thus bioethics too. In particular, I suggest, it may have great significance for the questions to be asked about the goals of medicine, commercial interests in health care, the research agenda,

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[72] Ecumenical Patriarch Bartholomew, "The Missing Dimension of an Environmental Ethos," *Origins* 32, no. 6 (2002): 84-86.

[73] McFague, *Life Abundant: Rethinking Theology and Economy for a Planet in Peril*, 186-92. McFague, reflects on the life of witness given us by eighteenth century Quaker abolitionist, John Woolman and Dorothy Day, the twentieth century founder of the Catholic Worker Movement. McFague points to their example of discipleship as embodying cruciform living and ascetic spirit. Both renounced many of their middle-class American comforts, not for some romantic notion of poverty but because of a deep gratitude for God's gifts in this world and because of their acute sense of *being* community. To illustrate her point McFague cites an extract from Woolman's journal in which he writes that he was called to love the invisible God but also "moved to love him in all his manifestations in the visible world ... "I looked upon the works of God in this visible creation, and an awfulness covered me. My heart was tender and often contrite, and a universal love to my fellow creatures increased in me". John Woolman, *The Journal and a Plea for the Poor* (New York: Corinth, 1961), 8-9. Cited in: McFague, *Life Abundant: Rethinking Theology and Economy for a Planet in Peril*, 189.

[74] See for example: John Paul II, "Peace with God the Creator, Peace with All of Creation," #1. Social Affairs Commission of the Canadian Conference of Catholic Bishops, "The Christian Ecological Imperative," #16. United Church of Canada: 34th General Council, "One Earth Community: Ethical Principles for Environment and Development. A Statement Issued in Response to the United Nations Conference on Environment and Development, Rio De Janeiro, 1992," 8. Catholic Bishops' Conference of England and Wales, *The Call of Creation: God's Invitation and the Human Response*

resource allocation for clinical care, the use of technology, the care of the most vulnerable in our communities, and end-of-life decision making. Where, for example, does restraint, sacrifice, foregoing, saying "no" or "enough" fit into these themes and why might it be important that they do so? On this point I believe, that Sallie McFague has something important to say. An ecological theology that encompasses an ascetic or cruciform way of living, she maintains, is in essence a "liberation theology". It liberates us from impossible expectations, from insatiable consumerism, it embraces a "philosophy of enoughness", and as a result it liberates others, including the natural world, for a better, healthier life. We make sacrifices, McFague says, "so that others might live".[75]

For an ascetic response or cruciform lifestyle to make any significant difference, however, it has to be widely received and adopted. For this to happen, a further and prophetic response is needed. Thus, McFague claims that it is the task of the churches and other religious groups to:

> See themselves as advocates for such an alternative paradigm within the public discourse. The Christian churches (and all other religions as well) should be a part of the conversation for the public good – not as cogs in the wheels of the establishment - but as counter-cultural voices for an alternative kind of abundant life for all members of the global family.[76]

In encompassing the need for a prophetic response the churches acknowledge the importance of this task. They call, at least in some ways, for a conversion from the anthropocentric focus of the past.[77] They call for a preferential option for the poor and the most vulnerable and they proclaim a vision of justice.[78] All of these features of a

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[75] McFague, *Life Abundant: Rethinking Theology and Economy for a Planet in Peril*, 33.
[76] Ibid., 199.
[77] Johnson, "God's Beloved Creation," 11. While the call for a more eco-centric perspective is clear in numerous ecclesial statements it should be noted, however, and as I will later demonstrate, that ambiguity around the topic persists in the churches.
[78] While it is the case that church leaders, theologians and ecclesial bodies have been clear about their prophetic role in the manner described above, it is my view that an internal prophecy is still needed. The churches, as I have attempted to show, have clearly spoken about the magnitude and urgency of the ecological crisis we face. They have been equally clear in arguing the

prophetic response have some significance for bioethics and the health care it serves. Indeed, a prophetic process itself has implications for a discipline, which as I have suggested at the beginning of this thesis, has oftentimes been comfortable in its condoning of the *status quo*.

Together, therefore, various churches and their theologians have begun to retrieve an ecological tradition of theology. In the light of that tradition, and with some development of it, they have reflected seriously on current global circumstances and they have committed in significant ways to the community of life. In so doing the churches, sometimes in partnership with other faith traditions, scientists and others, have begun to contribute to the visioning of a new moral framework. That moral framework, I believe, has a great deal to offer to the dialogue about a more relevant concept and practice of bioethics. Indeed, I suggest, that the work of the churches to date seems to generate the possibility of a bioethics that bears a striking resemblance to the concept proposed by Van Rensellaer Potter. We have in effect, therefore, the possibility of a second mirror-imaging between theology and bioethics. In the first case, as I claimed in chapter 1, that mirror-imaging helped in the development and consolidation of the standard and insufficient model of bioethics. If as I have argued earlier, however, a development of Van Rensellaer Potter's model of bioethics is crucial now, then this

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inseparability of issues of Earth and human justice and their relationship to health and wellbeing. They have delved into the depths of their traditions to demonstrate the moral nature of current global circumstances, to develop an ethics of relationship, and they have insisted that a response by Christians is not negotiable. Many of the documents produced are authoritative, eloquent, and even prayerful, in their expression. Yet, in my experience in parishes, retreat work, Christian group discussions and in tertiary level teaching, little if any, of the content of these documents is known. Their spiritual and moral imperatives are poorly understood, if at all. Thus, while Churches may see their role, as Sallie McFague suggests, as being advocates for an alternative vision and lifestyle, I do not believe this will be possible to achieve, until such a vision and lifestyle is known, understood, embraced and witnessed to by Church members themselves. A prophetic stance will have little relevance until an ecological spirit of contemplative awareness, gratitude, gift, sacred service and sacrifice underpin and permeate the worship, thinking, living and loving of the Christian community. I personally, and many Christians stand in need of a prophetic witness ourselves. My ecological conversion is far from complete.

second mirror-imaging holds out enormous promise for the evolution of a richer bioethics for today and for the future; an evolution to which theology has an important contribution to make.

A Second Mirror-Imaging: Theology and a New Foundation for Bioethics

What then are the central features of this second mirror-imaging between theology and bioethics to which I lay claim? I believe a reflection on all I have described above about current ecclesial responses together with a review of the key characteristics of Van Rensellaer Potter's work, described in chapters 1 and 2, make them clear.

Firstly, the churches in their reclamation of an ecological tradition in theology and Van Rensellaer Potter, through his biological knowledge, ecological engagement and spiritual commitment, present a bioethics that is grounded in notions of relationship and interdependence. Thus, together they provide as we have seen, a wide ranging, integrated bioethics in which environmental, social and human health care concerns cannot be separated. Earth-integrity, justice and human health form a whole. In turn, this conception of bioethics is necessarily communitarian. Like the science of ecology, it is founded on, and its meaning is given in the nature of relationships. While retaining a respectful understanding of the individual person or single living entity its goals and questions always reflect a fundamental concern for the survival and flourishing of all life now and in the future, and for the common good. A principle of vulnerability is restored to bioethics through which care for the poor and most needy, human and non-human, becomes a priority.[79] With this, the scope of bioethics is widened, its questions

[79] In a challenging book by ethicists, Edmund Pellegrino and David Thomasma, a concept or principle of vulnerability is discussed in some depth. While their work specifically deals with human health care and medicine, I believe, that their comments are invaluable in any reformulation of a wider construction of bioethics, a necessity for which, is clear in their

deepened and some of its national boundaries are, to an important extent, eliminated. Bioethics, in all of these respects, is thus for both Potter and the churches, essentially a global bioethics.

Secondly, both Potter and the contributing churches, while acknowledging the importance and benefits of scientific and technological progress, also recognize its limits. In doing so, they espouse a bioethical process that breaks down the current common dichotomy between the sciences and human values. Thus, they decry a modern exclusionary trend in specialization while respecting the autonomy and gifts of specialists. Moreover, they promote a trans-disciplinary approach for reflection on moral issues, for practical bioethical responses, and for bioethics education. It is an approach that maximizes mutual cooperation. In this context, church writings and Potter's work, as we have seen, refer to humility conjoined with responsibility.[80]

The mirror-image to which I refer also reflects an understanding of bioethics theory that is witnessed to in lifestyle. For the churches this is enunciated in the responses to be expected of Christians in their living, and which I have outlined above, contemplative, ascetic or cruciform, and prophetic. In Potter's own life, as accounts of it indicate, such a witness was realized. His great love of the natural world led him to a contemplative stance, a spiritual awareness, and a respect for the environment from which his value system was derivative. His bioethical vision was one of integrated

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arguments. Their claim is that "Vulnerability grounds the awareness of common bonds" as well as grounding the "duties of health professionals to heal". See: Edmund Pellegrino and David Thomasma, *Helping and Healing: Religious Commitment in Health Care* (Washington, D.C.: Georgetown University Press, 1997), 54-66, at 54. In the final section of this chapter I will return to such a conception of vulnerability arguing that it forms an integral part of a new foundation for bioethics.

[80] Systematic theologian, Anne Primavesi, in a recent publication, provides a very interesting reflection on "theology, ecology and humility" which sheds helpful light on this perspective. See: Anne Primavesi, *Making God Laugh: Human Arrogance and Ecological Humility* (Santa Rosa, CA: Polebridge Press, 2004).

concern. He committed himself to a life in science for the wellbeing of humankind but in his approach to his work he applied a "precautionary principle" for the sake of the survival of the planet and for the common good, human and non-human.[81] His personal life was marked by deep compassion and care for the world in which he lived and for other people, near and far. For them, and with them, he lived a life of simplicity, moderation, sharing and sacrifice. Indeed, he lived the bioethics he believed in, wrote about and taught.[82] It was a bioethics which he advocated strongly. He believed, as I have earlier indicated, that the churches, their theologians and other religious traditions, had in their wisdom of the ages, experience and commitment, the capacity to help proclaim and influence the evolution of such a bioethics.

Today, when we look at the contributions of the churches I believe that capacity has begun to be realized as Potter would have wished it. His work with theirs provides a mirror-image that reflects the great potential for a reformulation of bioethics. Theology once again has an opportunity to lend its voice, with others, to the evolution of bioethics. It is a voice that is already able to bring richness to the discussions as we have seen, but

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[81] While Potter does not use the term, "precautionary principle" in his writing, it is clear from what he does claim that such a principle is operational in his understanding of the practice of "good science". For example, he touches on this topic in his discussion of risk analysis and cancer causation. See: Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," 2301. The principle is clearly implied in his work on genes and ethical behavior: Potter, "Global Bioethics: Linking Genes to Ethical Behavior." A 'precautionary principle has been articulated in the following way: "When an activity raises threats to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity rather than the public, should bear the burden of proof." This definition was developed at the Wingspread Conference held in Racine, Wisconsin in January 1998. Attended by an international group of renowned scientists, researchers, environmentalists, academics and labor representatives, the Conference met to discuss ways of incorporating a precautionary approach into environmental and public health decision-making. Further details may be accessed from: Wingspread Conference, *The Precautionary Principle* (W. Alton Jones Foundation, 3, March 2001, 1998 [cited October, 26 2004]); available from http//www.uwsp.edu/geo/cpurses/geog100/TowardSolns-PP.htm.

[82] One gains a picture of Van Rensellaer Potter's personal integrity in the commentaries on his life and work written by Peter Whitehouse. See for example: Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir."

I will argue that something more is needed for it to reach greater capacity to contribute to a shift in our understandings of bioethics. The more that is needed is a resolute turn from the anthropocentric bias that prevails in church documents and teachings and in much theological discourse.[83]

Prevailing Anthropocentrism

At very least, a marked ambiguity with respect to the place of humans in creation, is evident in many ecclesial documents, church teachings and theology more generally. Pope John Paul II's Peace message provides an example of the problem. In that document, as I have described above, John Paul emphasizes that a peaceful society depends on care for creation, that social justice and environmental concern are necessarily linked, and that the ecological crisis is a moral problem. To that end, he stresses the need "to keep ever alive a sense of 'fraternity' with all those good and beautiful things which Almighty God has created". He concludes, however, with a reminder of "our serious obligation to respect and watch over them with care, in light of that greater and higher fraternity that exists in the human family". This hierarchical ordering, John Paul says is divinely ordained.[84] In support of this perspective John Paul II quotes the document *Gaudium et Spes* (the 1965 Pastoral Constitution of the Church in the Modern World, produced by the Second Vatican Council). It states: "God destined the earth and all it contains for the use of every individual and all peoples."[85] Thus, despite the fact that this document in general presents a remarkably world-affirming perspective and call to the Church to engage fully in the modern world, it nonetheless, continues to cling to a "dominion theology" which of its very nature, is profoundly

[83] McDonagh, *Passion for the Earth*, 104-05.
[84] John Paul II, "Peace with God the Creator, Peace with All of Creation," #8, #16.
[85] *Gaudium et Spes,* #69 in: Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents*, 975.

anthropocentric. Such a theology projects a view of the natural world as existing primarily, if not exclusively, for the use of humans. The same document states elsewhere, "Man was created in God's image and was commanded to conquer the earth with all it contains and to rule the world in justice and holiness".[86] While it may be argued here that the reference to ruling "in justice and holiness" represents a limited concept of human dominion, to which some other ecclesial documents allude, such an idea is not clear if an earlier statement in *Guadium et Spes* is taken account of.[87] It reads, "Believers and unbelievers agree almost unanimously that all things on earth should be ordained to man as to their center and summit".[88]

Echoes of this perspective are found in more recent Roman Catholic documents. The Vatican International Theological Commission, for example notes that, "The only creature willed by God for his own sake occupies a unique place at the summit of visible creation.[89] This sort of hierarchical, anthropocentric bias continues to pervade Vatican documents. An anthropocentric absorption is also present in much Protestant work as Elizabeth Johnson makes clear. This is encapsulated, she maintains in a continuing Protestant emphasis on "fallen nature". This perspective, says Johnson, "sets up a roadblock to bringing the earth permanently into view as a subject of religious interest". A divorce between nature and history continues to be blessed in most of the theology and philosophy of the Protestant West and contemporary attempts to think

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[86] *Gaudium et Spes,* #34 in: Ibid., 933.
[87] Pope John Paul II, frequently alludes to a limited understanding of dominion in his works. He says, for example, that dominion is "limited by God's will and community of creatures". John Paul II, *Sollicitudo Rei Socialis*, #29. He later states that "the dominion granted to man by the Creator is not an absolute power, nor can one speak of freedom to 'use and misuse; or to dispose of things as one pleases". John Paul II, *Evangelium Vitae*, #42. If we compare these statements with those in the above reference, the ambiguity in Church teaching on the place of humanity, is striking.
[88] *Gaudium et Spes,* #12 in: Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents*, 913.
[89] International Theological Commission, "Communion and Stewardship: Human Persons Created in the Image of God," 243.

otherwise have to struggle with this deeply embedded characteristic of the reforming tradition.[90]

In the light of such prevailing attitudes more than a simple response to global circumstances is needed, and to date according to Michael McCarthy, church initiatives have been largely matters of response. Given the stimulus of an environmental and thus, human crisis, McCarthy maintains:

> The Church felt it had to say something about it. It was recognized as a real issue, and as very important; but deep down it was an add-on, it was peripheral. It was not a core concern. And so the Church's environmental voice is never that of leader, never stands out, but remains part of the background noise.[91]

How sad that evaluation is when, as I have attempted to show, the Church already has so much to offer from its rich ecological tradition. It is invited to become a leader, with others, in the evolution of a vitally needed ecological ethics. It can become so, I believe, if it is now prepared to make the integrity of all creation a core concern, a foundational ethic. To achieve this will require, however, a vital conversion in theological orientation. Thus, I concur with Elizabeth Johnson who claims that:

> We [now] need to complete our recent anthropological turns by turning to the entire interconnected community of life and the network of life systems in which the human race is embedded, all of which have their own intrinsic value before God. In a word we need to convert our intelligence to the heavens and the earth.[92]

Or as priest and cultural historian, Thomas Berry has said, "the great spiritual mission of the present is a renewal of the entire Western religious-spiritual tradition in relation to the integral functioning of the bio-systems of the planet".[93] So it is to Thomas Berry, that I

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[90] Johnson, "Losing and Finding Creation in the Christian Tradition," 12.
[91] Michael McCarthy, "Planet Earth - Its Fate in Our Hands," *The Tablet*, February 21 2004, 4-6.
[92] Johnson, "The Cosmos: An Astonishing Image of God," 207.
[93] Thomas Berry, "An Ecologically Sensitive Spirituality," *Teilhard Perspective* 30, no. 1 (1997): 4. Thomas Berry was born in 1914 and ordained a Roman Catholic priest in the Passionist order in 1942. He studied history at the Catholic University of America receiving his doctorate in cultural history from that institution in 1949. Berry subsequently studied Chinese in Peking and between 1956-1966 he taught Asian Studies in the U.S.A. In 1966, Berry became Professor of the History

now turn in order continue this reflection on the re-engagement of theology with a new vision for bioethics. For Berry's work, I believe, will help consolidate the grounding for a revitalized theory and practice of bioethics.

Thomas Berry: The Need for a New Story

In a lecture delivered at Harvard University in 1996, Thomas Berry made the claim that currently:

> We have an ethics and a jurisprudence that begins with the human and determines our conduct in our relations with each other and our individual relations with the human community. These are our primary concerns. We work out our patterns of conduct simply by considering our inherent nature as intelligent compassionate beings. As such we must govern our actions by our reasoning faculty in relation to our individual well being and the wellbeing of the community, understanding by "community" the "human community".[94]

Berry's words, I believe, aptly describe the continuing nature of our moral paradigm in general. As I indicated in chapter 1, they also accurately depict the dominant manner in which we learn and do bioethics today. In fact, they may be overly generous in that regard since in bioethics not only do we neglect a wider notion of non-human community but we also fail, by reason of our entrapment in radically individualistic notions of autonomy and the scientific paradigm, to adequately address the questions, concerns,

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of Religions and Director of the History and Religion Program in the Department of Theology at Fordham University, New York. Berry has also taught at Columbia University, Drew University and the University of San Diego. With the aim of extending study into the dynamics of the Earth and the role of humans within that context, Berry founded the Center for Religious Research in Riverdale, New York in 1970. Between, 1975-1987 Berry served as the elected President of the American Teilhard Association. These features of Berry's life provide a sense of the factors that have greatly influenced his work. Berry has variously called himself a cultural historian and a "geologian", meaning by that term, one who studies the dynamics of the Earth community, including its geological and biological as well as its human components. Berry does not call himself a theologian despite his teaching career in theological centers. This perhaps reflects the fact that his specific graduate work was not in the field of theology (Berry's doctoral thesis focused on Giambattista's philosophy of history).It might also reflect some concern regarding potential censorship of his quite radical work. For the biographical details above I am indebted to: Anne Lonergan, "Introduction:The Challenge of Thomas Berry," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 1-4, at 2-3.

[94] Thomas Berry, "Ethics and Ecology," in *A paper delivered to the Harvard Seminar on Environmental Values: Harvard University* (1996), Thomas Berry, *Ethics and Ecology* (1996 [cited May 8, 2005]); available from http://ecoethics.net/ops/eth&ecol.htm.

issues and needs of even our larger human community. Berry's statement above also reflects the bias which prevails, as we have seen, in many of our religious stories, statements and actions from which commonly, our ethical framing, consciously or unconsciously, derives. Furthermore, it accurately articulates the dominant moral grounding in humanist and scientific thought and action in our time. What Berry does in his critique of religion, humanism, science and ethics is to point directly to the fundamental flaw of anthropocentrism which he sees as the underpinning of our disregard for the natural world and the root of our destructive behaviors. "The natural world around us is simply the context in which human affairs take place", he maintains.[95] In the light of current destruction of the earth and the indifference of humans toward one another, which are issues of deepest concern for Berry and the starting point of his ethics, a continuation of our anthropocentric, individualistic texts for living are totally inadequate.[96] This, I believe, is also the case with respect to bioethics. Since my final task in this thesis is to examine new foundations for a revised theory and practice of the discipline, I will therefore, limit my consideration here to those parts of Berry's work which facilitate that task.

For Berry, it is primarily the anthropocentric bias of our stories that is problematic and the power of our stories cannot be underestimated. Most importantly, the story of the universe, which has been recounted in many ways by the peoples of the earth, "has given meaning to life and existence itself".[97] Berry contends, however:

> We are in trouble just now because we do not have a good story. We are in between stories. The old story, the account of how the world came to be and how we fit into it, is no longer effective. Yet, we have not learned the new story. Our

[95] Berry, "Ethics and Ecology."
[96] Ibid. For an excellent overview of the factors that motivate and inform Berry's work see: Mary Evelyn Tucker, *Thomas Berry and the New Story: An Introduction to the Work of Thomas Berry* (2002 [cited May 12, 2005]); available from www.ecoethics.net/ops/tucker.htm.
[97] Swimme and Berry, *The Universe Story*, 1.

> traditional story of the universe sustained us for a long period of time. It shaped our emotional attitudes, provided us with life purposes, and energized action. It consecrated suffering and integrated knowledge. We awoke in the morning and knew where we were.[98]

Today, that is no longer the case. Presently, our traditional Western story is inadequate because, and despite the fact that some adhere to it and act with sincerity "according to its guidance", it is "dysfunctional in its larger social dimensions".[99]

Berry cites the black plague which swept across Europe in the fourteenth and fifteenth centuries, killing between 1/3 and 1/2 of the affected populations, as the point at which a common Western story lost its central meaningfulness for a community. The pandemic presented a profound challenge to the Western mindset. It did not fit the story of old. Its devastating effects caused some people to turn to an excessively private, redemptive spirituality. It caused others "to seek truth in a desacralized, objective search for scientific knowledge".[100] The dichotomy between these two positions has largely, and despite some recent rapprochement between science and religion, persisted to the present day.

As the black plague decimated Europe many sought divine intervention to mitigate the terrible power of death and suffering. Christianity embraced a strong redemption-centered theology and piety. To be redeemed was to be liberated from this world of suffering. To the exclusion of other dimensions of faith and even of Christ's passion itself, Christianity preached the power of Christ's suffering and death to alleviate the burden of human suffering. A theology of creation was subsumed under a theology

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[98] Berry, *The Dream of the Earth*, 123.
[99] Ibid., 124.
[100] Caroline Richards, "The New Cosmology: What It Really Means," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CN: Twenty-Third Publications, 1990), 91-101, at 91.

of personal redemption.[101] Thus, the integrity of the Christian story was profoundly affected, Berry claims. Cosmology lost its significance. Creation became increasingly less important. Moreover, the articulation of the Christian story with its excessive focus on the private interior life of the individual and on the salvific community is a "sectarian story". While it has functioned well institutionally and morally in Western society for generations, Berry maintains, it is no longer the story of the Earth or the integral story of the human community.[102]

The other response to the black plague led many to reject altogether a notion of divine existence or intervention. There developed, states Berry:

> A deep hidden rage against the human condition, an unwillingness to accept life under the conditions that life is granted to us, a feeling of oppression by the normal human condition, a feeling that the pains of life and ultimately death are something that should not be, something that must be defeated.[103]

Thus, the growing scientific, secular community sought to combat or control the terrible consequences of natural events through the study of the earth and its processes. An emphasis on the primacy of empirical evidence emerged. The telescope and the microscope were invented facilitating scientific inquiry which became the central human quest. Calculus was developed making theoretical projection possible. New sciences developed in light of the work of Francis Bacon and Isaac Newton. This intense scientific endeavor was supported and accelerated through the primacy afforded to the faculty of reason by the Enlightenment philosophers and through nineteenth century social

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[101] Tucker, *Thomas Berry and the New Story: An Introduction to the Work of Thomas Berry* ([cited).

[102] Berry, *The Dream of the Earth*, 126.

[103] Berry, "Ethics and Ecology," 3. It is interesting to note here that Gerald McKenny, in his excellent critique of bioethics to which I have referred earlier, also points to these trends as highly significant in the development of that discipline. McKenny believes that if an alternative and more adequate understanding of bioethics is to be found it will be important to challenge many aspects of this attitude toward the human condition. See: McKenny, *To Relieve the Human Condition: Bioethics, Technology, and the Body.*

development.[104] In the nineteenth century too, biological understanding of development increased. As Berry has remarked:

> The earth was not the eternal, fixed, abiding reality that it had been thought to be. It suddenly dawned on Western consciousness that earlier life forms were of a simpler nature than later life forms, that later life forms were derived from earlier life forms. The complex of life manifestations had not existed from the beginning by some external divine creative act setting all things in their place. The earth in all its parts, especially in its life forms, was in a state of continuing transformation.[105]

As this reality found expression in Darwin's evolutionary theory "insight into the microphase and macrophase of the phenomenal world was obtained, and the great unity of the universe became apparent both in its spatial expansion and its time sequence".[106] We live not so much in a cosmos but a cosmogenesis.[107] An awareness of the subjective communion of the human with the earth began to be experienced. "The human was seen as that being in whom the universe in its evolutionary dimension became conscious of itself."[108]

A new creation story had unfolded and was fully embraced by the scientific secular community. It was, and continues to be for many, a story which discloses the universe as a random sequence of physical and biological interactions that have no inherent meaning. Thus, Berry maintains: "While we have more scientific knowledge of the universe than any people ever had, it is not the type of knowledge that leads to an intimate presence within a meaningful universe".[109] On the other hand, for those whose self perception and sense of meaning was embedded in an exclusively redemptive theological story, this new vision proved threatening, heretical even. For many, who had

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[104] Berry, *The Dream of the Earth*, 126-27.
[105] Ibid., 127 28.
[106] Ibid., 128.
[107] Thomas Berry, *The Great Work: Our Way into the Future* (New York: Bell Tower, 1999), 26.
[108] Berry, *The Dream of the Earth*, 26.
[109] Berry, *The Great Work: Our Way into the Future*, 15.

no ability to cope with the new and seemingly overwhelming data, the only recourse appeared to be a retreat into the traditional salvific story; a retreat without question, modification or development. Most recently, this approach has been evidenced in an increasingly entrenched fundamentalism.[110] Thus, for many of the community of faith cosmology, ancient or new, has little relevance. Real values are focused on the Savior, and concerned with human redemption, the believing church, and a "postearthly paradisal beatitude".[111]

Today, this chasm between the secular scientific world and the world of religion persists. According to Berry, it permeates our institutions and the professions. It fractures our Western educational system into its scientific and humanistic dimensions as though these are independent of each other.[112] Science gifts us in many ways yet it provides us with ever increasing means to manipulate the world of nature, and possibly, to destroy it along with human wellbeing and life. Alone, science provides no wisdom, values foundation or practical moral guidance.[113] Religion, on the other hand, provides solace and stability for many, but its narratives are sectarian and thus divisive.[114] Its stories are unconvincing to those without faith. Its narratives are dissected from the secular learning upon which contemporary life is founded and lived out. While Berry recognizes that

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[110] Thomas Berry and Thomas Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," ed. Thomas Clarke, Stephen Dunn, G., and Anne Lonergan (Mystic, CT: Twenty-Third Publications, 1991), 9.
[111] Berry, *The Dream of the Earth*, 128.
[112] Swimme and Berry, *The Universe Story*, 1. In this respect Berry echoes the thought of Van Rensselaer Potter who, as noted earlier, signaled this particular problem and attempted to identify ways in which the two perceptually distinct domains might be bridged through the development of an integrated concept of bioethics. See for example: Potter, *Bioethics: Bridge to the Future.*
[113] This, view, as described earlier, was also expressed clearly by Van Rensselaer Potter in his address to colleagues working in the field of cancer research. See: Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address."
[114] This concern, as I have indicated earlier, pre-occupied Hans Küng and the Parliament of the World's religions as they grappled to deal with their differences in order to move forward together toward an ecological responsiveness. See: Küng and Kuschel, eds., *A Global Ethic: The Declaration of the Parliament of the World's Religions.*

science and religion sometimes extend respect to one another, that dialogue does occur, and that some cooperative initiatives exist, he does not believe that this is adequate to address our present problems. He sees current relationships between science and religion as superficial. He states:

> Surface agreement is not depth communion or the basis of sound cosmic-earth-human values. The antagonisms are deeper than they appear. An integral story has not emerged, and no community exists without a unifying story. This is precisely why the communication between these two is so unsatisfying. No sustaining values have emerged. Our social problems are not resolved. The earth continues to disintegrate under the plundering assault of humans. Both traditions are trivialized. The human venture remains stuck in its impasse. [115]

The only way through the impasse according to Berry is the espousal of a "New Story" and Berry sets out to provide that story.[116]

The New Story: Berry's Functional Cosmology

In his articulation of a new story of the universe, Berry firstly challenges the presumption that our current global and human problems can be addressed adequately through the resources found in our cultural and religious traditions, through scientific, political or economic enterprise, or through any form of internal transformation. In fact,

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[115] Berry, *The Dream of the Earth.*

[116] Berry's ideas on the "New Story" and his articulation of it began in the early 1970s as he grappled with the magnitude of contemporary environmental, social, political and economic problems. It is thus, says Mary Evelyn Tucker, no abstract pondering but a story grounded in "concern for the almost suicidal path of humans in their destruction of the earth and in their violence and indifference to one another". See: Tucker, *Thomas Berry and the New Story: An Introduction to the Work of Thomas Berry* ([cited). An early expression of Berry's "New Story" is found in: Thomas Berry, "The New Story," in *Teilhard Studies no. 1* (Chambersburg, PA: Anima Press, 1978). Berry later revised his "New Story" in: Berry, *The Dream of the Earth*, 123-37. Although written in 1988, this text provides the substantive expression of Berry's "New Story". It remains relevant today. The essence of this "New Story" continues to permeate Berry's more recent works. Substantively there is no change in its content. What Berry does, however, in his later writings is to expound the story in the light of emerging scientific development, social change and theological reflection. See for example: Swimme and Berry, *The Universe Story.* The fundamentals of the story are implicit in Berry's reflections on ethics. See: Berry, "Ethics and Ecology." They are evident in his call for a new spirituality: Berry, "An Ecologically Sensitive Spirituality." The substantive content of the story also penetrates his reflections on practical matters, including those on education, geography, politics, corporate enterprise and economy, which are found in his challenge to humanity for the twenty-first century: Berry, *The Great Work: Our Way into the Future.*

Berry contends that each of these "stories" has contributed to the eco-crisis, including its human manifestations, in which we currently find ourselves. Therefore, there is a need for a new creation narrative, one that embraces the credible scientific telling of the universe story as well as the wisdom and meaning provided by the traditions of faith and spirituality.[117] Berry's "New Story" is expressed as a functional cosmology, given form by certain pre-suppositions.[118] These pre-suppositions have been expressed in what have been called, Berry's "Twelve Principles for Understanding the Role of the Human in the Universe Process".[119] They are as follows:

- The universe is the only text without a context. It is the great epic, the story from which all other stories depend and emerge.
- The universe is the only self-referent mode of being in the phenomenal order. All other beings are universe referred.
- We live in an emergent, time-developmental universe; an unfolding, irreversible sequence of transformations, an evolving integral, creative reality – a cosmogenesis.
- The universe is the fundamental revelatory experience.
- Everything in the universe is genetically related.
- The three basic tendencies of the universe are differentiation, subjectivity and communion.
- The universe is a community of subjects, not a collection of objects.
- The primary intention of life is neither one of peace nor conflict, but creativity.
- The earth is a one-time endowment.
- The earth is primary, human is derivative.
- Humanity is a celebratory species. The universe reflects upon itself through the human. We cannot discover ourselves without first discovering the universe, the

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[117] See: Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 5-7. In particular, Berry believes that the indigenous spiritual traditions have much to teach us today.

[118] Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 84.

[119] Thomas Berry, "Twelve Principles for Reflecting on the Universe and the Role of the Human in the Universe Process," *Cross Currents* 37, no. 2-3 (1987).These principles are also discernible throughout Berry's early and more recent works. See for example the following essays in: Berry, *The Dream of the Earth.* "The Earth Community", pp 6-12; "Human Presence", pp. 13-23; "The Ecological Age", pp. 36-49; "The New Story", pp. 123-137; "The Dream of the Earth: Our Way to the Future", pp. 194-215. They are also clear in: Berry, *The Great Work: Our Way into the Future.*The principles are detailed in: Anne Lonergan and Caroline Richards, eds., *Thomas Berry and the New Cosmology* (Mystic, CT: Twenty-Third Publications, 1990), 107-08. They also appear in a slightly abbreviated but substantively replete form in: Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 85. (Above, I have used the version offered by Heather Eaton, who for the sake of clarity, divides them into thirteen principles) Distillations of the principles may also be found in: Brian Swimme, "Berry's Cosmology," *Cross Currents* 37, no. 2-3 (1987): 218-24.

earth, the imperatives from our own being. Humans are a dimension of the earth and the universe.

- The community of creatures on earth is of greater value than any particular part.
- The earth is a single reality, and cannot be saved in fragments.

Berry's "Principles" provide a succinct summary of his "New Story" of the universe. The assertions they express are fundamental to his understanding of the nature of reality and from them he derives his notion of ethics and his hope for a viable future.[120]

As his first principle indicates, Berry takes the universe as primary. "Only the universe is a text without a context", he says. "Every other being has the universe for context."[121] The universe story is the story upon which all other stories are derived and upon which they depend. Berry's starting point is the universe as it is revealed in contemporary scientific understandings.[122] Berry begins to expound his story with reference to genetic coding. He states:

> Our genetic coding determines not only our identity at birth; its guidance continues also in every cell of our bodies throughout the entire course of our existence, a guidance manifested through the spontaneities within us. We need only to listen to what we are being told through the very structure and functioning of our being. We do invent our cultural coding, but the power to do so is itself consequent upon the imperative of our genetic coding.[123]

In this genetic encoding or identity, expressed in the structure and functioning of our being, Berry believes that we have the capacity to realize the crisis we are in and to recognize our confusions around our place and role in the planetary community; confusions that are the source of our current crisis. To understand this more fully,

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[120] Berry, "Ethics and Ecology."
[121] Thomas Berry, "An Ecologically Sensitive Spirituality," (Unpublished Paper, 1996), 6.
[122] Brian Swimme, "Science: A Partner in Creating the Vision," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CN: Twenty-Third Publications, 1987), 81-90, at 82. Berry and Brian Swimme provide a detailed account of the universe story and its scientific underpinnings in: Swimme and Berry, *The Universe Story*.
[123] Berry, *The Dream of the Earth*, 194-95.

however, Berry suggests we need to reach beyond our own genetic coding to the earth, as the source of our being, and ask for its guidance. For, Berry claims, "the earth carries the psychic structure as well as the physical form of every living being upon the planet".[124] Even beyond the earth we must appeal to the universe to:

> Inquire concerning the basic issues of reality and value, for even more than the earth, the universe carries the deep mysteries of our existence within itself. We cannot discover ourselves without first discovering the universe, the earth and the imperatives of our own being. Each of us has a creative power and a vision far beyond any rational thought or cultural creation of which we are capable. Nor should we think of these as isolated from our own being or from the earth community. We have no existence except within the earth and within the universe.[125]

Thus firstly, it is to the "deep mysteries" of the universe that we need to return to find the reality of existence and to discern the values needed for present wellbeing and future survival. This is the essence of Berry's functional cosmology. Indeed, this is precisely what makes his cosmology, functional. Berry puts it in the following way:

> A return to the mystique of the earth is, I would say, a primary requirement if we are ever going to establish a viable rapport between humans and the Earth. Only in this context will we overcome the arrogance that sets us apart from all other components of the planet and establishes a mode of conquest rather than of admiration. To assume that conquest and use is our primary relation with the natural world is ultimate disaster.[126]

Berry is saddened by the loss of a sense of wonder and of the sacred with respect to the natural world that marks both the scientific secular community and communities of faith.[127] There is an urgent need, he maintains, to regain a sacred vision of the unity of all life and to apply it to everyday living in a way that people of all faith traditions and other backgrounds can appreciate and adopt. This, Berry designates the

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[124] Ibid., 195.
[125] Ibid.
[126] Berry, "An Ecologically Sensitive Spirituality," 2-3.
[127] Berry, *The Great Work: Our Way into the Future*, 22-24.

"Ecozoic era".[128] Such an era will become a reality only if people come to view "the universe beyond ourselves as a revelatory experience of that numinous presence whence all things come into being". For Berry, "the universe is the primal sacral reality", and people "become sacred by our participation in this more sublime dimension of the world about us".[129] "The spiritual and the physical are two dimensions of the single reality that is the universe."[130] It is critical that we come to a full awareness of this reality for, as Berry puts it, "The beginning of wisdom in any human activity is a certain reverence before the primordial mystery of existence".[131] Berry believes that an understanding of this mystery goes beyond the words of Scripture, dogmatic or theological statements.[132]

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[128] Swimme and Berry, *The Universe Story*, 241-61. See also: Berry, *The Great Work: Our Way into the Future*, 49.
[129] Berry, *The Great Work: Our Way into the Future*, 49.
[130] Ibid., 49-50.
[131] Ibid., 50.
[132] This contention of Berry's has been seen as highly controversial. His tendency toward somewhat rash expression or "shock tactics" has reinforced notions that he is dismissing Scriptural revelation or religion entirely. Personally, I have found Berry's manner of expression, at least at face value, spiritually challenging if not at times, deeply troubling. He has stated, for example, "I sometimes think that we worry too much about Jesus Christ" and "I suggest we might give up the Bible for awhile, put it on the shelf for perhaps twenty years." See: Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 75. Both statements are highly provocative. Yet, they must be understood in context. With respect to the Bible, Berry is not proposing that it should be put aside because it lacks value or indeed truth through the various modes of Scriptural expression. Indeed, his personal and frequent reference to Scripture and his use of its metaphors suggests entirely otherwise. Rather, what Berry is attempting to assert is that, if for a time the Bible was set aside in order that greater consideration be given to revelation in creation, the Scriptures might then be read in a fresh and more adequate manner. With respect to his comment about Jesus Christ, Berry is probably not in any way minimizing the truths of Christianity but he is trying to rebalance those truths so that the sole pre-occupation of the Christian is not focused on redemption understood in a traditional manner. In fact, Jesus Christ is integral to Berry's beliefs and claims. What Berry is essentially trying to do is to develop the grounds for a "shift in religious understandings of the universe" such that the natural world is understood as the primary revelation of the divine. To explain this he states: "there is a Christ dimension integral to the numinous dimension of the universe. Yet we need to discover the universe before we can discover Christ." Berry continues: "We cannot start with the written Scriptures. The psalms do indeed tell us that the mountains and birds praise God. But do we have to read the Scriptures to experience that? Why are we not getting our religious insight from our experience of the trees, our experience of the mountains, our experience of the rivers, of the sea and the winds? Why are we not responding religiously to these realities? For, until we do, Berry maintains, we will have no moral and practical capacities to deal with the environmental and human problems of our time. See: Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 75.

It also goes beyond the limitations of scientific theory, investigation and explanation.[133] "Emphasis on verbal revelation to the neglect of the manifestation of the divine in the natural world is to mistake the entire revelatory process", Berry states. Moreover, the excessive emphasis in the Western religious traditions on personal redemption "leaves us unable to benefit religiously from that primary and most profound mode of experiencing the divine in the immediacies of life".[134] In the case of science, the revelatory experience of wonder and awe does not "need telescope, microscope or scientific analysis".[135]

It is one of Berry's greatest achievements that through his insistence on the universe as fundamental revelatory experience he has been able to bring many people, scientists and religious believers, to a profound sense of the mystery of creation and to a realization of derivative values. Brian Swimme, physicist, mathematical cosmologist, and close colleague of Berry, maintains that Berry is able to teach scientists about the universe. By taking as his starting point, contemporary modes of scientific understanding, and by doing so with a sound knowledge base, he stands with scientists. By taking the universe as primary, Berry "is able to work out a cosmology that is meaningful to anyone educated in modern ways of knowing". With scientists, Berry has "discovered and been stunned by the beauty of the universe." This alone, Swimme claims, enables a scientist to value Berry's intuitions. "For, here is a person – even a religious personality – who is as devoted as they are to the beauty that suffuses the world."[136] The development of the awareness of the universe as revelation of the

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[133] For a brief but informative discussion of this emphasis in Berry's work, see: John Hart, *What Are They Saying About Environmental Theology?* (New York/Mahwah, NJ: Paulist Press, 2004), 77-80.
[134] Berry, *The Great Work: Our Way into the Future*, 75.
[135] Ibid.
[136] Swimme, "Science: A Partner in Creating the Vision," 83-84.

primordial mystery of existence, not generally a feature of scientific education or its practices, enables scientists to understand the "full significance" of their work, Swimme contends. It frees them to "recognize the cosmic story as their aim". He concludes:

> The scientific enterprise has eventuated in a creation myth that offers humanity a deeper realization of our bondedness, our profound communion not only within our own species, but throughout the living and non-living universe.[137]

How does this scientific story, however, reveal the primordial mystery of existence? How does it provide the fundamental revelatory experience of divine presence that Berry maintains it does?[138] Importantly, how are values and moral imperatives to be derived from these pre-suppositions?

Key to Berry's contention that the universe is the fundamental revelatory experience is the understanding, with which science has gifted us, of the universe as time-emergent and time developmental.[139] Berry defines revelation as "the awakening in the depths of human psychic awareness of a sense of ultimate mystery and how ultimate mystery communicates itself".[140] Scientists are able to experience this mystery, Berry contends, through their increasing awareness of the "trans-scientific implications of science". There is, he says, "a belief element at the ultimate reaches of the scientific experience". To illustrate this point Berry uses the example of gravitation which is, he maintains, "both an experience and in some manner a belief" because it is a mystery that we cannot comprehend fully. As Berry sees it, "Reconstituting this within a religious

[137] Ibid., 85-86.
[138] Berry, *The Dream of the Earth*, 120.
[139] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 4-6.
[140] Ibid., 8.

perspective and relating this to a new, larger, more expansive dimension of Christianity is the theological role of our time".[141]

Why, Berry asks, do we have such a wonderful idea of God? It is he says, because we observe about us, a world of magnificence and immense diversity. It is a world that reveals to us the ultimate mystery of existence, the divine. To support this position, Berry appeals to Thomas Aquinas' *Summa Theologica* (Prima Pars, Question 47, Article 1). Quoting Aquinas, Berry states:

> because the divine goodness 'could not be adequately represented by one creature alone, [God] produced many diverse creatures, that what was wanting to one in the representation of the divine goodness might be supplied by another. For goodness, which in God is simple and uniform, in creatures is manifold and divided; and hence the whole universe together participates the divine goodness more perfectly, and represents it better than any single creature whatever'. From this we could argue that the community of all the components of the planet Earth is primary in the divine intention.[142]

Here, Berry is arguing from Aquinas that God not only desires and chooses to communicate God's self with creation but that the divine communication through the various parts of creation manifests as participation in the divine.[143] Moreover, the totality of differentiated and interacting diversity of creation is the greatest measure of its perfection, since the greatest fullness of "divine representation in creation most closely reflects divine perfection".[144]

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[141] Ibid. Berry recognizes that for some Christians the idea of the congruence of scientific data and revelation is problematic. He points out, however, that the endeavor to identify this is similar to the situation in the early church when a meeting of Christian belief and Greek thought occurred. This meeting, he believes marked the very beginning of structured theology. Berry also compares the merging of contemporary scientific thought and Christian belief as similar to Augustine's marriage of belief to the Neoplatonism of his time and to the embrace of Aristotelian thought by Thomas Aquinas. Each of these meetings of belief and contemporary thought, Berry argues, brought an appropriately new and "finely wrought" expression to Christianity.

[142] Berry, *The Dream of the Earth*, 79.

[143] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 17.

[144] Dennis Patrick O' Hara, "The Implications of Thomas Berry's Cosmology for an Understanding of the Spiritual Dimensions of Human Health" (PhD, University of Saint Michael's College, 1998),

Recognition of this primary revelation in the totality of the universe, Berry claims, leads us to a sense of adoration and immense gratitude. "This adoration and gratitude we call religion."[145] This experience is moreover one that is shared by people of all religions and the mystery it represents is perceived in some way by all peoples regardless of whether or not they name it a religious experience. What we have to apprehend, Berry maintains, is that this sense of mystery or divine presence is understood differently by various peoples and across the ages and within our new historical context. Now we perceive the mystery or divine in a world that is understood through a "new mode of intellectual perception".[146] That world is time-emergent and time-developmental, one that is defined by a process from lesser to greater complexity and consciousness. In this regard the modern scientific view of the universe is consistent with the biblical account of creation in Genesis which, although expressed in a narrative of constricted time, recounts a story of an emergent universe. Berry reminds us too that in his Gospel, Saint John tells us that in the beginning all things took on their form through the Word.

> The word, the self-spoken word, by its own spontaneities brought forth the universe and established itself as the ultimate norm of reality and of value....This spontaneity as the guiding force of the universe can be thought of as a mysterious impulse whereby the primordial fireball flared forth in its enormous energy, a fireball that contained in itself all that would ever emerge into being.[147]

When Berry speaks of the Word as the "guiding force of the universe", he means that God "enables" the universe to "function from within its own spontaneity" so that the universe might reveal its inherent "capacity of self-articulation". The universe is not controlled by God as though it is a "puppet show".[148] Thus, Berry maintains that God is

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130. Here Dennis O'Hara is citing: Thomas Berry, "The Gaia Theory: Its Religious Implications," *ARC* 22 (1994): 7-20.

[145] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 9.

[146] Ibid., 11-12.

[147] Ibid.

[148] Ibid.

the source of intelligible order as the Word, yet God enables creation to emerge through its own spontaneities. The intelligible order of the universe of which God is identity and source, is no human fabrication, Berry argues, nor is it the product of random interactions. It is an inherent dynamic of the universe which from the beginning has shaped the evolution of the cosmos through all its stages.[149] This universal dynamic is expressed physically and psychically in the integrity of life and in all its various forms in the organizing principles of the universe. The organizing principles are differentiation (the variety and distinctiveness of everything in the universe), subjectivity or inward articulation (the interior numinous component or consciousness present in all reality), and communion (the capacity to relate to all people and all beings because of the presence of subjectivity and difference).[150]

It is the ordered context of the universe, that Berry maintains, awakens "in humans their present understanding of themselves and their relation to this stupendous process".[151] The dynamic also helps humans to comprehend their current destructiveness of the environment and their crisis in relationship, human and otherwise. It calls them to responsibility within creation. For, given the capacity of creation to emerge through its own spontaneities, God does not intervene directly to remedy natural crisis. God is, nevertheless, present to humans and in the natural world. God speaks to us through the ordering principles of creation. The ultimate numinous dimension of the universe, offers guidance.[152] It enables us, moreover, to apprehend the critical and

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[149] Thomas Berry, "The New Story: Comments on the Origin, Identification and Transmission of Values," *Cross Currents* 37, no. 2-3 (1987): 187-99.
[150] Berry, *The Dream of the Earth*, 45-46. Swimme and Berry, *The Universe Story*, 71,72. The definitions of the principles given above are slightly adapted from: Tucker, *Thomas Berry and the New Story: An Introduction to the Work of Thomas Berry* ([cited).
[151] Berry, "The New Story: Comments on the Origin, Identification and Transmission of Values," 187-99, at 99.
[152] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 52.

defining identity of the emergent universe which according to Berry, is that it is "the most basic expression of community". The universe is, he says, "the ultimate sacred community".[153]

The universe is community because all of its parts are bound together in an inseparable unity, the result of the basic dynamics or ordering principles of the cosmos itself.[154] The universe is sacred community because these very dynamics of the cosmos are revelatory of God as their identity and source. These dynamics find expression in the Christian concept of Trinity, since as Berry makes clear, there is a sense that the inner life of the divine is community. This finds expression biblically and traditionally as Father, Son and Holy Spirit: "The Father, the emergent principle; the Son, the inner articulation of things; and the Holy spirit, the bonding force of all things." In Augustine's theological explanation of Trinity as "thought thinking itself, which is considered something of the inner life of pure spirit", Berry also sees the cosmic dynamics as finding expression. So too, in more recent sociological models of trinity which refer to the self, the other and the community. Berry proposes, however, that a new model of Trinity based on cosmology is more appropriate. For, the divine or ultimate mystery is revealed to us through the model of differentiation, subjectivity and communion that emerges from our scientific understanding of the universe.[155] The fact that this is an empirical model provides access to it as a common story that all can comprehend as the story of Earth and the story of human place and purpose. It is the fundamental sacred story that is prior but not necessarily incompatible with any particular religious or cultural expression of it. It is a story that calls all to a spiritual and moral connectedness. Together, the dynamics of the

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[153] Ibid., 13.
[154] Berry, *The Dream of the Earth*, 135-36.
[155] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 15.

universe create the foundation for a comprehensive ecological and social ethics that is based upon a realization of human dependence upon and interactive relationship with the Earth.[156] Berry goes on to explain why and how that is the case.

In the beginning, we have an expansive differentiating force. We have "articulated entities" or diversity of life and immediately gravitation comes into being pulling all things together in a profound intimacy or communion. The attraction that everything has for everything else is critical. Together the expansive, differentiating force and the attractive force form the curvature of the universe. Everything that exists comes into being within this context. If the rate of emergence had been a minute fraction faster or slower the universe would have either exploded or collapsed. The process had to be exquisitely precise because the curvature of the universe had to be such that the universe could continue to expand without exploding or collapsing. Thus, says Berry, "We have a universe held together, but not held so tightly that its expansion or its creativity would be stifled". This curvature, Berry calls "the compassionate curve". It "embraces the universe". It reflects the intrinsic nature of all beings to reach toward and to embrace one another. Thus, true alienation of one entity from another or from the whole is, Berry adds, a "cosmological impossibility". "We may *feel* alienated, but we can never be alienated."[157] We are necessarily community in this sense.

Also, community is the reality of the universe because everything in the universe is genetically related, hence Berry's insistence on genetic coding or the genetic

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[156] Tucker, *Thomas Berry and the New Story: An Introduction to the Work of Thomas Berry*. See also: Stephen G. Dunn, "Needed: A New Genre for Moral Theology," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 73-79.

[157] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 14.

imperative, to which I have referred earlier. Everything has the same origin. "We are literally born as community; the trees, the birds, and all living creatures are bonded together in a single community of life."[158] We exist entirely within this context or we will not exist at all.[159] Since all living beings, including humans with their evolved faculty of consciousness, have the same origins, Berry maintains there must have been a bio-spiritual component of the universe from the beginning. This has profound religious and ethical implications. In coming to this realization, Berry contends:

> The human emerges not only as an earthling, but as a worldling. We bear the universe in our beings as the universe bears us in its being. The two have a total presence to each other and to that deeper mystery out of which both the universe and ourselves have emerged.[160]

Berry is clear that attention to the subjective dimension of the universe story is crucial. He claims that appreciation of the "reality and value of the interior subjective numinous aspect of the entire cosmic order is ...the basic condition in which the story makes any

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[158] Ibid., 14-15.

[159] Berry, *The Dream of the Earth*, 135.

[160] Ibid., 132. In his later work, Berry reiterates the importance of realizing the universe as community of subjects. See especially: Berry, *The Great Work: Our Way into the Future*, 160. Mary Evelyn Tucker, in her introduction to the work of Thomas Berry, points out the influence of Teilhard de Chardin in Berry's articulation of this aspect of his work.. For de Chardin, "In the Divine Milieu all the elements of the universe touch each other by that which is most inward and ultimate in them". de Chardin, *The Divine Milieu*, 92. Cited in: Tucker, *Thomas Berry and the New Story: An Introduction to the Work of Thomas Berry* ([cited). Indeed, throughout Berry's formulation of the "New Story", de Chardin's influence can be felt, most particularly as in the above example, de Chardin's appreciation of developmental time. From de Chardin, Berry also developed his understanding of the psychic-physical character of the evolving universe. For both de Chardin and Berry, matter is not simply inert but it has a numinous reality consisting of a physical and spiritual dimension. Berry is clear on this point in: Berry, *The Great Work: Our Way into the Future*, 81. From de Chardin's work on evolutionary theory, Berry also gleaned much for his expression of a law of complexity-consciousness. This law suggests that as things evolve from simpler to more complex organisms, consciousness increases, with self-consciousness emerging ultimately in the human. The human is distinguished by this faculty for reflection. It is the characteristic that gives humans a special role in the evolutionary process but it also serves to remind us of our belonging to the Earth. We are not set apart from it. Berry acknowledges the influence of de Chardin's work in his formulation of the "New Story" but as Tucker points out in her text cited above, Berry critiqued what he saw to be de Chardin's overly optimistic view of progress. Berry was also critical of the fact that de Chardin, despite his many years spent in China, failed to appreciate or to incorporate into his work, the wisdom of Asian and indigenous religious traditions. By contrast, Berry who also spent time in China studied and taught the value of religious pluralism. He greatly valued the insights of various religions as he developed his functional cosmology. Indeed, in his very early work Berry expresses the view that respect for religious and cultural diversity is necessary for a viable universe. See: Thomas Berry, *Five Oriental Philosophies* (Albany, NY: Magi Books, 1968), 45-46.

sense at all".[161] The universe, he says, is a communion of subjects rather than a collection of objects".[162] He thus argues that every being has inherent rights to their place in Earth community.[163] Each being has "the right to be, the right to habitat, and the right to fulfill its role in the great community of existence".[164] Therefore, Berry claims:

> The present urgency is to begin thinking within the context of the whole earth, the integral community of non-living and living components. When we discuss ethics we must understand it to mean the principles and values that govern that comprehensive community and the manner in which the community of the whole natural world achieves its integral expression. Human ethics concerns the manner whereby we give expression at the rational level to the ordering principles of that larger community.[165]

This statement of Berry's has enormous implications for the way in which we might conceive and practice bioethics for the future. Before going on to provide details of such a bioethics I will, however, firstly bring to light several points of critique of Berry that I believe are important to note.

Some Critique of Thomas Berry

A clear presentation of Berry's work is in some respects quite difficult because Berry, like Teilhard de Chardin before him, commonly writes in a poetic manner.[166] This means that at one level his ideas are open to a degree of interpretation. Moreover, the ideas that he expresses throughout his works, are reiterated in a variety of ways, sometimes with the use of differing language between texts.[167] Also, it seems to me that

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[161] Berry, *The Dream of the Earth*, 135.
[162] Berry, "Ethics and Ecology," 2.
[163] Berry, *The Great Work: Our Way into the Future*, 115.
[164] Berry, "An Ecologically Sensitive Spirituality," 3.
[165] Berry, "Ethics and Ecology," 7.
[166] Celia Deane-Drummond says, for example, that Berry's "call to identification with the Earth has striking parallels with romantic portrayals of Gaia". Celia Deane-Drummond, *Creation through Wisdom* (Edinburgh: T&T Clark, 2000), 40.
[167] When referring to the organizing principles of the universe, for example, Berry uses a variety of terms: Differentiation is synonymous with diversity, complexity, variation, disparity, multiform nature, heterogeneity and articulation. For the principle of subjectivity, Berry is just as comfortable with the terms self-manifestation, sentience, self-organization, dynamic centers of experience, presence, identity, inner principle of being, voice and interiority. For communion, Berry variously

Berry, like de Chardin, tends to take conceptual leaps in his presentation of ideas. Thus, any summary of his work depends to some extent on a certain amount of intuition. Berry's work is vast in scope. As Heather Eaton contends, "It requires pondering to grasp the full implications of his vision".[168] Within the context of this thesis I have been able to discuss only those features of Berry's work which I believe provide the grounding for his understanding of ethics. In so doing, I have perhaps, like Berry, taken some conceptual leaps. What I have attempted to do, however, is to set out some of the key components of Berry's thought which, it seems to me, progress logically towards some important contributions for a future vision of bioethics; details of which I will discuss toward the end of this chapter.

Another matter of concern with respect to Berry's work is whether or not, through his arguments, he is really able to establish a moral imperative. Berry presumes that increasing consciousness about the facts of creation and recognition of the natural world as the primary revelation of ultimate mystery and source of all being, identified by some as God, will assure that humanity will re-establish harmony with the intrinsic dynamics of the universe and act morally in accordance with those dynamics.
In following this progression of thought is Berry, however, at risk of "succumbing to the naturalistic fallacy"?[169] I believe the answer to that question is "no" and "yes"!

In Berry's own case, and for those who like him *identify* completely with the universe and its dynamics, then my sense is that moral imperatives do follow from that

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uses interrelatedness, interdependence, kinship, mutuality, internal relatedness, reciprocity, interconnectivity, and affiliation. See: Swimme and Berry, *The Universe Story*, 71-72.
[168] Eaton and Lorentzen, eds., *Ecofeminism and Globalization: Exploring Culture, Context and Religion*, 89.
[169] James Farris, "Redemption: Fundamental to the Story," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 65-71, at 69.

identity. Such imperatives logically flow from the consciousness of the magnificence of the universe and its revelatory function of which Berry speaks. As Berry himself points out, however, "Only an ecologically sensitive personality can do this".[170] Only a profoundly ecologically sensitive person, in my view, can derive 'ought from what is' within this context. Not everyone has such sensitivity, however. Perhaps Berry is, nonetheless, right that all people have the capacity for such sensitivity by virtue of identity and communion with the inherent dynamics of life. He may be correct in thinking that if awareness of the magnificence of creation, and the mystery or sacredness it reveals, can be increased then a moral concern for the Earth and its diverse expressions of life will follow. Creating the context for increasing awareness is vitally needed today. With Berry, I agree that it is "a primary requirement" if we are to work toward wellbeing, health and indeed future survival of Earth and humanity.[171] Nonetheless, to assume that people generally will "re-orientate the human venture toward intimate experience of the world around us"[172] with all that morally implies is, I would argue, something of a utopian dream. While much may be achieved toward desired environmental and human goals by the thoroughgoing espousal of the vision and practice that Berry presents, a contribution that I will later argue is invaluable, I am unconvinced that alone it is adequate. For many people at the present time, there are too many limitations, obstacles or innate beliefs to make that feasible. It is simply not the case that the resacralization of nature alone will result in greater human responsibility for the Earth.[173]

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[170] Berry, "An Ecologically Sensitive Spirituality," 4.
[171] Ibid.: 2.
[172] Ibid.
[173] Celia Deane-Drummond, "Biology and Theology in Conversation," *New Blackfriars* 74, no. 865 (1993): 469-73. This journal article is included in: Jeff Astley, David Brown, and Ann Loades, eds., *Creation*, 3 vols., vol. 1, *Problems in Theology: A Selection of Key Readings* (London/New York: T&T Clark Ltd., 2003), 72-75. The specific reference to resacralization and human responsibility to which I have referred is found in this volume at page, 75.

It must be kept in mind, for example, that Berry speaks from a certain place of privilege. His world is not the world in which every day is a fight for individual survival. For some people, mired in deep poverty and suffering, the vision of Earth's wonders may be clouded and a sense of its inherent value, diminished.[174] Furthermore, Berry has the aesthetic and spiritual sensitivities that may, as he claims, be gift of the Earth as primary referent and revelation but those sensitivities may have been honed as the perceptual gifts of his cultural and/or religious heritage. It is important to remember, for example, that Berry is writing within the context of Eurowestern culture. Although his "New Story" is "universal" or "common" in one respect, his "language, concepts, philosophical and religious categories" and his approach to empirical evidence is essentially grounded in a Eurowestern cultural paradigm.[175] Berry, in fact acknowledges this point. For, although he is cognizant and deeply respectful of the contributions of other cultures and religions, frequently bringing them into his work, he writes primarily from a Eurowestern perspective precisely because he believes the West, with its cultural concepts, is "the most dangerous force on the planet."[176] Berry also has a remarkable intellectual capacity and adequate scientific knowledge that enable him, through personal experience, to

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[174] I call to mind here an experience recounted by a priest colleague who felt convinced that if he were to be able to arrange a week's vacation to a farm in the deep countryside for very underprivileged city adolescents, it would enable them to better appreciate the natural world, deepen their spiritual, psychic and moral sensitivities, and provide them some happiness. With generous support from parishioners he, and a group of lay ministers, were able to take a group of youth from his parish and its surrounding areas for such an experience. He was greatly distressed to find that the youth involved were completely unable to adapt to the rural experience. They had no real appreciation for the countryside. Indeed some were quite disturbed by it. They were unable to relate to the natural world around them thus, it had no spiritual or moral connection for them. They wanted only to return to the slums of their city where they were "at home" and importantly, where they were able to earn a pittance during the summer to help their families and to provide some personal "pocket money". The experience their priest so generously arranged may perhaps have been more effective for younger children in the way he had anticipated. For his group of adolescents, however, it had little impact. Their personal circumstances and social conditions of poverty made them impervious to the experience. The priest concerned went on to do much to help those adolescents personally, spiritually and morally but other ways of achieving that had to be found, including the use of many of the resources available through the traditional, institutional, urban church.

[175] Eaton, "A Critical Inquiry into an Ecofeminist Cosmology", 88.

[176] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 118.

mine the meaning of the universe in a way not accessible to many others. There are certain conditions of intellect, aesthetic sense or spiritual identification that may be necessary for experiencing the universe in the way that Berry experiences it; conditions not available to all people unaided. Thus, while our genetic coding may, as Berry suggests, enable us to recognize our unity with all creation and receive guidance, "manifested through the spontaneities within us", to respond to that reality, it may not be enough.[177] Short of espousing some expression of genetic reductionism, more may be required to respond to our current problems. For, as James Farris has remarked, if our understanding of the world is in the first place, "problematic or ambiguous, then we must look to some other ground of hope, or accept the absurdity of our fate".[178] Might one other ground of hope be religious tradition and some of its current theological and pastoral articulations?

The problem here as Berry sees it is that the religious traditions and Christianity, in particular, have failed to respond in any relevant manner to the crisis we currently face.[179] Moreover, his view, like that of Lynn White Jr. to whom I have earlier referred, is that in some respects Christianity has been responsible for much of the dualistic and hierarchical ideology that underpins the current harmful situation.[180] The

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[177] Berry, *The Dream of the Earth*, 194-95.
[178] Farris, "Redemption: Fundamental to the Story," 69.
[179] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 9.
[180] It is interesting to note here that for a considerable period of time, despite his criticisms of Christian ideology vis-à-vis the world, Berry himself remained oblivious to the impact of patriarchy both within Judeo-Christian traditions and beyond them. Theologian, Margaret Brennan drew Berry's attention to this difficulty in his work. See: Thomas Berry, "Patriarchy: The Root of Alienation from the Earth," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 57-63. With characteristic openness and humility, Berry did respond to Brennan's criticism in a very positive manner and he has subsequently shown great awareness of the impact of patriarchy in his writings and lectures. Indeed, in the volume in which Brennan wrote her critique as a form of dialogue with him, Berry responded in the following way: "If there is to be any acceptable future for the variety of living forms that constitute in great part the splendor of the Earth, or if there is to be any acceptable human future, the grandeur of this planet must continue to flourish. This can only come about by a

biblical tradition, specifically, has been tagged as culpable. From my discussion in chapter 3, it is clear that there are some real grounds for Berry's perspective. Nonetheless, it is also clear from that discussion that Berry's viewpoint is based on a thin analysis of the tradition. Like Lynn White, Berry overlooks or provides an inadequate account of much that the tradition embraces; indeed he minimizes much of the tradition that is consistent with his own principles and goals. There is no in-depth discussion in Berry's work, for example, of pluralism and diversity in the Scriptures. He does not provide critical analysis of biblical conceptions of the land and human responsibility with respect to it. While he does highlight election and sectarianism in the accounts of the community of Israel and of the Jewish-Christian community he fails to balance that with accounts of recorded contacts with other groups, even of the adoption of some of the nature rituals of surrounding peoples, or of the inclusion of the Gentiles in the early Church.[181] Berry sees the depiction of the transcendent God in Scripture as a foundation for the "desacralization" of the natural world and while it is clear from my earlier discussion that historically a transcendent image of God has led to a disregard for the world, it does not follow that this is always the case. The Scriptures, for example, are rich with narratives and poems of Earth as created through God's Word as eminently revelatory of God. The very account of the Incarnation, in the various ways in which it

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transformation of patriarchal dominion to a more nurturing attitude, both toward the natural world and all its living creatures, and of humans toward each other." See: Thomas Berry, "Our Future on Earth: Where Do We Go from Here?," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 103-06, at 06.

[181] Israel, while rejecting much of the Canaanite tradition surrounding them as idolatrous and because of practices of sexual ritualization, did, however, adopt many of the Canaanite nature rituals incorporating aspects of them into their own feasts such as Passover and Sukkoth. In the New Testament, Luke-Acts witnesses to the movement of the early Christian community from a Palestinian to a Hellenistic context. Paul's works, most notably his Epistle to the Galatians is rich in his defense of the inclusion of Gentiles. For a clear discussion of these points see: Donald Senior, "The Earth Story: Where Does the Bible Fit In?," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 41-50.

finds expression in the books of the New Testament, bespeaks the sacredness of the world.

As Scripture scholar, Donald Senior, who despite applauding much of Berry's analysis and criticism points out, if Berry were to more fully explore the biblical tradition he might well find there much that accords with, and supports his arguments.[182] Senior argues, for example, that the Bible itself expresses a vision or a "story" that enabled the people of Israel and the early Christians to "take a dynamic approach to their worlds". The realism with respect to global problems that Berry articulates so well, Senior maintains, does find a reflection and potential response in Scripture. For, "realism is a primary biblical virtue". The biblical world, he says, is not idealistic. "It is drenched in human experience and pushes its reflections to every corner of its perceived world." Moreover, the desire for communion among the various religious and other traditions of the world, that Berry sees as vital and as potentially achievable through an understanding of the "New Story", can also find a foundation in the Scriptural accounts of pluralism and inclusion. Indeed, Senior contends, one cannot "deny that a vivid sense of community is at the heart of the biblical dream".[183]

Much the same, I believe, may be said about the Christian theological tradition and recent Church responses.[184] While clearly ambiguous, and sometimes world-negating there is nonetheless much there also that is consistent with, and affirming of Berry's views and goals. In particular, the revelatory nature of the world, the innate goodness and value of all creation, human responsibility towards the land and towards

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[182] Ibid.
[183] Ibid., 44.
[184] To be fair to Berry's criticism of the Christian Church, however, some of the most positive ecclesial commentary has been produced since Berry completed his substantive works.

other humans, the preferential option for the poor in its broadest articulation, the realistic identification of current problems, and the call to community in diversity are all present in the tradition. These themes are clear and are being increasingly refined in new Church initiatives.

Importantly, the call to "ecological conversion" so prevalent in recent Church documents and speeches, surely echoes the importance of many of Berry's insightful challenges. For if, as Senior comments, Berry's analysis of the present crisis of Earth and humanity is correct, "then what is being called for is 'conversion' – in the most serious sense of that word". He continues, that it is unlikely, however, that for Christians at least, such radical conversion as is needed will be feasible without significant continuity with our sacred story; a story which finds its basis in Scripture.[185] To this, I would add, it is also a story which has some of its key foundations in an emerging theological tradition. Even the biblical and theological concept of redemption may be helpful in enabling people to come to the deeper moral conversion that Berry's story demands. Certainly Berry is correct to criticize the pre-occupation with personal redemption so prevalent in some of Scripture and in the theological context. It has, as Berry contends, given strong support to an ethos of unlimited and destructive progress. Nonetheless, are our current problems not due in part also to ignoring some essential elements of the notion of redemption? The understanding, for example, that life and land are the gifts of God not to be abused by humans, is a critical part of the redemption story. So too is an understanding of human sin, the need for ongoing conversion, and

[185] Senior, "The Earth Story: Where Does the Bible Fit In?," 44. For many people the sense of a deeply personal God is vital for the ongoing conversion called for. While I cannot comment on Berry's own notion of God, writers such as Berry, in order not to become entrapped in particularistic claims, often portray an image of God that tends to reflect the distant and abstract notion of the divine of deism. The conversion and response of many, I would contend, finds its source in a relationship with the God of theism, as experienced through religious expression, a God actively involved in the world and human life. See for example: Barbour, *Nature, Human Nature and God*, 3.

the call to goodness and justice.[186] Might the major problems we face, therefore, have more to do with our static and myopic understandings of our various traditions than with their reality? As Donald Senior remarks:

> With proper understanding would our problems be solved? I am convinced that his [Berry's] analysis would only be more effective if biblical traditions were seen less as culprit and more as ally in the task of creating a global, inclusive community.[187]

The same, I believe, may be said for our theological traditions. For, as theologian Gregory Baum, observes, radical and prophetic approaches like those proposed by Berry can make a wide contribution only if they "find a home in tradition". He continues:

> Churches become agents of change only if their prophets, their daring thinkers, their innovators, speak from the center of the tradition. Their re-interpretation must verify itself in the religious experience of the people.[188]

If Baum is correct here, then one might argue that Berry's challenge is weakened by his apparent shelving of tradition and his seeming rejection of the importance of the 'particular voice'. The challenge needed for a conversion to the Earth may in fact require that it is articulated through the evolving traditions that shape and give meaning to peoples' lives. In the Christian context, for example, there are, I believe, "prophets, daring thinkers and innovators" who have the capacity to provide the substance of Berry's challenge without minimizing the relevance of the tradition. One such person *par excellence* is the theologian Jürgen Moltmann. For Moltmann, I will maintain, is able to issue a challenge as contemporary and urgent as that offered by Berry without loss of that which is at the heart of the call to conversion for many, and which at the same time

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[186] Senior, "The Earth Story: Where Does the Bible Fit In?," 48.
[187] Ibid., 49.
[188] Gregory Baum, "The Grand Vision: It Needs Social Action," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 51-56, at 55. Baum's perspective here in many ways echoes the sentiments expressed by Van Rensselaer Potter when he wrote of religion's contribution to the possible future of bioethics. Potter, for example, made clear his belief that alone the secular or the scientific perspective was inadequate for the transition he saw as necessary for planetary and human survival and wellbeing. Potter stated, "the role of religion as a motivating force is paramount". See: Potter, "Science, Religion Must Share Quest for Global Survival," 12.

will resonate with others called to such conversion through differing traditions and experiences. Moltmann, I will argue, shares much common ground with Berry but his ability to reach more people, and thus to effect change, is strengthened precisely because he argues through the lens of a particular perspective. At this point, I will therefore, provide some comparison between Berry and Moltmann.

Berry and Moltmann: Some Points of Comparison

Like Berry, Moltmann is deeply concerned about the ecological crisis and its roots in economic and social processes.[189] Both recognize that fundamentally the crisis is a crisis in the understanding of human relationship to nature. Berry and Moltmann also agree that in part the relational crisis has been, and continues to be, fueled by traditional Scriptural interpretation and theological constructs. It is also, they claim, a crisis that is derived from the classical scientific and philosophic pattern beginning with Bacon and Descartes. As Moltmann says, it is "a pattern of domination and exploitation" of nature by humanity.[190] In light of these problems, Berry, we have seen, calls for a "New Story". Moltmann similarly maintains that "we have to develop a new model" of understanding relationship.[191] In their search for and expression of a new story and a new model respectively, both Berry and Moltmann take very seriously scientific understandings of evolution. They both incorporate the particular evidence and insights of modern science concerning the interdependence of all living beings. From such scientific developments, both draw moral and practical conclusions. Moltmann, for example, claims that science today shows that "out of consideration for our partner 'environment', we must not do

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[189] See for example: Jürgen Moltmann, *Science and Wisdom*, trans. Margaret Kohl (London: SCM Press, 2003), 33-53.
[190] Ibid., 48.
[191] Ibid., 49.

what we would be able to do".[192] He further maintains that today's science teaches that it is only in human/non-human "symbioses" that survival for all living beings is possible.[193] Thus, like Berry, Moltmann seeks to develop a new anthropology, that is, a new human self-understanding in relationship to the rest of nature and to the whole of nature. Moltmann is clear, however, that such a renewal of anthropology is essentially a theological renewal, since in his view a renewed understanding of human relationship to nature is inseparable from a "renewed understanding of God's relationship to the world as his creation".[194] It is in the setting out of his renewed theological framework that I believe Moltmann differs substantively from Berry in his call to a conversion to and for the Earth.

Moltmann's creation theology through which he articulates his new anthropology requires, he maintains, reflection on the ways in which we think about God. Thus, a reconception of human relationship to nature requires a reconception of God's relationship to nature. Moltmann rejects the traditional understanding of God as the monarchical ruler of creation, an understanding which he believes, has encouraged humanity, God's image on earth, to see itself as distinct from nature and in a relationship of domination toward it.[195] Moltmann contends that a wide reading of Scripture pertaining to creation in both the Old and New Testaments leads to rejection of such understandings of divine and human relationship to the earth.[196] He is critical of those who focus solely on the one text in the book of Genesis which enjoins humanity to "be

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[192] I take from Moltmann's statement here that he ascribes to some form of a 'precautionary principle' with respect to the functions of science which for him finds its basis in a theological-moral framework.
[193] Moltmann, *Science and Wisdom*, 49.
[194] Richard Bauckham, *The Theology of Jürgen Moltmann* (Edinburgh: T&T Clark, 1995), 183.
[195] Ibid., 184.
[196] Moltmann, *Science and Wisdom*, 47-48.

fruitful and multiply, and fill the earth and subdue it" (Gen. 1:28). It is a criticism that might well be leveled at Berry's limited reflections on Scripture.

Moltmann, in working out his theology of creation, appeals to a Trinitarian concept of God. "God is not a divine hierarchy, but a trinitarian community of persons, who relate to each other in a relationship of mutual indwelling (*perchoresis*)".[197] God's Trinitarian life provides the pattern for creation which is, in essence, a community of interdependent relationships. As Moltmann puts it, "All living things – each in its own specific way – live in one another and with one another, from one another and for one another".[198] Here, I believe, it is possible to detect a parallel with Berry's dynamics of the universe - differentiation, subjectivity and communion. Human beings, as the image of God, have a particular, distinct place within nature. It is not however, a place of superiority and dominance. Humans are a part of the community of creation, called to a participation in mutual relationship within it. Moltmann's understanding of creation is thus not anthropocentric but theocentric.[199] He does not need, as Berry does, to sideline religious content in order to make this critical challenge to human-centered tradition.

According to Moltmann, not only is the Trinitarian God a community and God's creation a like community, but God's relationship with creation is one of mutual indwelling.[200] God is not only, as 'Father', the transcendent God of creation but also, as

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[197] Bauckham, *The Theology of Jürgen Moltmann*, 185. It is interesting to note that the Trinitarian motif relating to God and creation recurs, albeit with revision, as I have shown in Chapter 3, throughout the Christian tradition. It is particularly strong in the Celtic tradition.
[198] Jürgen Moltmann, *God in Creation: An Ecological Doctrine of Creation*, trans. Margaret Kohl (London: SCM Press, 1985), 17.
[199] Bauckham, *The Theology of Jürgen Moltmann*, 17.
[200] This contention asserts much more than the notion that creation is the "fundamental revelatory experience", a notion given prominence in Berry's work.

Spirit, God is an imminent presence within creation.[201] On this understanding, Moltmann is able incorporate human and non-human creation into his Trinitarian concept of God.[202] The trinitarian concept of God, Moltmann asserts, integrates the "truth of monotheism and pantheism". His view of God is, therefore, he says, a panentheistic view. "God having created the world, also dwells in it, and conversely the world which he has created exists in him. This is a concept which can really only be thought and described in Trinitarian terms."[203] Furthermore, because of the Trinitarian relationship between the transcendence and immanence of God, the Spirit present within creation "not only differentiates and binds together all things in the community of creation, but also keeps the world open in self-transcendence".[204] The universe, Moltmann says, "cannot be viewed as a closed system. It has to be understood as a system – open for God and for his future".[205]

Creation from the beginning, Moltmann believes, is to be understood as "*creatio mutabilis*, a creation that is subject to change. It is perfectible, not perfect. ... Creation at the beginning is the creation of conditions for the potentialities of creation's history."[206] Further, creation from the beginning has an eschatological orientation towards a messianic future, a future opened up by the history, the suffering, the death

[201] I have placed the word, "Father" in inverted commas in this context since Moltmann resisted a static and purely patriarchal construct of God. See: Deane-Drummond, *Creation through Wisdom*, 131.
[202] See: Jürgen Moltmann, *The Spirit of Life*, trans. Margaret Kohl (London: SCM Press, 1992).
[203] Moltmann, *God in Creation: An Ecological Doctrine of Creation*, 98.
[204] Bauckham, *The Theology of Jürgen Moltmann*, 187.
[205] Moltmann, *God in Creation and the Spirit of God*, 103. See also: Moltmann, *Science and Wisdom*, 34-53.
[206] Moltmann, *Science and Wisdom*, 39. This theological argument is both influenced by and consistent in many respects with current scientific theories but it is not, Richard Bauckham claims, "determined by them". For, theology, according to Moltmann, has a specific 'contribution to make which cannot come from science". See: Bauckham, *The Theology of Jürgen Moltmann*, 190. On this point, Moltmann himself writes, "The sciences have shown us how to understand creation as nature. Now theology must show how nature is to be understood as God's creation". See: Moltmann, *God in Creation: An Ecological Doctrine of Creation*, 38. In this respect Moltmann's work, I suggest, differs substantively from Berry's assertion of the universe as fundamental revelatory experience.

and resurrection of Jesus.[207] Creation in Moltmann's terms is thus understood in the light of redemptive history revealed as "a not yet completed creation, subject to the power of nothingness from which it requires redemption but open to its future goal of transfiguration in the kingdom of glory".[208] The kingdom of glory represents the consummation of the whole creative process, human and non-human, through God's indwelling.[209] Humanity's eschatological orientation and goal does not, therefore, create a separation of humanity from the rest of nature – a notion, which I suggest, challenges the traditional and limited vision of redemptive theology justly criticized by Berry. Rather, Moltmann understands the human eschatological goal to affirm our essential relatedness with nature. We are community of life, patterned on divine Trinity, and from this reality flow human responsibilities to address the social, political, and environmental problems of our time.

In the above section, it has not been my aim to provide a comprehensive or nuanced account of Moltmann's theology of creation. Given the focus and scope of this work it would not be possible to do so. Nor have I presented a critique of what I see to be Moltmann's tendency to express concepts in an ambiguous manner, a characteristic he shares with Berry.[210] Rather, what I have set out to show by way of a 'taster' of Moltmann's theological framework, incorporating some of his pivotal themes, is the capacity to address contemporary global problems through appeal to a particular religious tradition. Moltmann does this very well through the development of his theology

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[207] Moltmann, *Science and Wisdom*, 190.
[208] Bauckham, *The Theology of Jürgen Moltmann*, 187. Bauckham points out that the creation-redemption history as Moltmann understands it is one in which God suffers his creation as well as acts on it. Here, I believe some clear parallels between Moltmann's thought and Process Theology can be drawn.
[209] Moltmann, *Science and Wisdom*, 47. Here Moltmann is building on his earlier *Theology of Hope*. See: Jürgen Moltmann, *Theology of Hope: On the Ground and the Implications of a Christian Eschatology*, trans. J.W. Leitch (London: SCM Press, 1967).
[210] For an excellent and thorough description and critique of Moltmann's theology of creation see: Deane-Drummond, *Ecology in Jürgen Moltmann's Theology*.

of creation in which he incorporates current scientific theories, theories which in turn help shape a dynamic theological process. Indeed, his particular claims, as I have earlier suggested, may well have the potential to reach many of us (at least those who are shaped by and who espouse the Christian tradition), who stand in need of ecological conversion in a way in which the common story alone offered by Berry does not. For they are claims that resonate with greater meaning in real lives to be lived and transformed. Nonetheless, Moltmann, I believe, would agree with Berry on the importance of the common but evolving story of the cosmos to help effect necessary global change. It is from that story that Berry derives some critical insights into ethics. They are insights that I suggest may make important contributions to the evolution of bioethics, insights that I will now go on to discuss.

The Contributions of Thomas Berry to a Reformulation of Bioethics

Berry's important contributions to ethics derive from his functional cosmology. That cosmology yields three commitments that Berry identifies as foundational to his ethics. He expresses a commitment to:

- the natural world as revelatory;
- the Earth community as our primary loyalty in a biocentric rather than anthropocentric orientation;
- the progress of the community in its integrity.

These three commitments, Berry claims, "constitute the new religious-spiritual context for carrying out a change of direction in human-Earth development". As such, they "provide the order of the magnitude of the task that is before us".[211]

[211] Thomas Berry, "Economics: Its Effect on the Life Systems of the World," in *Thomas Berry and the New Cosmology*, ed. Anne Lonergan and Caroline Richards (Mystic, CT: Twenty-Third Publications, 1990), 5-26, at 19.

The three commitments reflect Berry's concept of macrophase and microphase reality, the relationship of the whole and its parts.[212] From this conception, Berry articulates a macrophase ethics that according to Stephen Dunn is at once, "comprehensive, religiously convincing, and culturally inclusive". Moreover, it yields as its fundamental and primary question, "What does it mean to be human on this planet?"[213] It is a comprehensive ethics because it recognizes that we are first of all a species of the Earth and our responsibilities and challenges are broadened to reflect that reality. It is a religiously convincing and culturally inclusive ethic, Dunn maintains, because in embracing creation as the primary revelation of the divine, all human cultures "have something to say to the revelatory nature of this universe".[214] It invites a shared and, therefore, potentially more effective moral response to current problems. Its primary question reflects the reality of the interconnectedness of the whole of creation and in so doing it deeply challenges the anthropocentrism of traditional moral theology, of recent church teaching and contemporary ethics. In turn, it challenges the entrenchment of autonomy in modern bioethics. For, "the depth of our interconnection with the whole Earth is a much more primary reality than our autonomy".[215]

With his focus on the time-developmental nature of the universe, Berry also invites a conception of ethics that is self-reflective and dynamic in its understandings and applications. By describing the cosmos in terms of macrophase and microphase, Berry affirms the relational nature of ethics. Macrophase reality is the reality of community. Thus, while Berry is respectful of and concerned about individual persons and other

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[212] Swimme and Berry, *The Universe Story*, 55-56.
[213] Dunn, "Needed: A New Genre for Moral Theology," 75-76. It is interesting to note here the similarity of concern which Berry shares with ethicists like Van Rensselaer Potter, Daniel Callahan and Hubert Doucet whose critiques of contemporary bioethics, I have discussed in earlier chapters.
[214] Ibid., 76.
[215] Ibid.

entities - the microphase - he insists that the macrophase is the primary context of life and of ethics.[216] In focusing on the macrophase, Berry shifts our primary pre-occupation with isolated issues in ethics to a perspective in which such issues, while important, are considered within a broader context.[217] As Stephen Dunn remarks, "This is a blow to the style of the autonomous ethics we have known in the modern period, but it is a liberating expansion of the sense of the real that is sorely needed".[218] A sense of the real is, moreover, something that Berry is deeply concerned about. He takes his notion of macrophase reality and ethics and applies it directly to the professions, institutions and activities of our contemporary world. Berry states:

> All human professions, institutions, and activities must be integrated with the Earth as the primary self-propagating, self-nourishing, educating, self governing, self-healing and self-fulfilling community. To integrate our human activities within this context is our way into the future.[219]

The medical and health professions, the institutions that educate and house their members, and the activities they undertake are no exceptions. Based on his functional cosmology and the ethics it generates, Berry has some insightful reflections on health and medicine that, I believe, are extremely valuable for the re-visioning of the bioethics that purports to serve them.

Berry is clear that human health is derivative from planetary health. The health of the ecosystem is a prerequisite for human health.[220] Berry thus argues that the

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[216] Berry, *Ethics and Ecology*

[217] To illustrate this point, Berry uses the metaphor of the sinking of the Titanic. He points out that long before the disaster occurred clear evidence was available to the ship's command that dangerous icebergs lay ahead. Confidence in the survival capacities of the ship was, however, unshakeable. The crew was totally pre-occupied with the day-to-day minutiae of running the ship and keeping the passengers content. But as Berry puts it: "The daily concerns of the ship and its passengers needed to be set aside for a more urgent concern for the wellbeing of the ship itself. Microphase concerns needed to give way to a macrophase issue". See: Ibid.([cited).

[218] Dunn, "Needed: A New Genre for Moral Theology," 77.

[219] Berry, "Economics: Its Effect on the Life Systems of the World," 26.

[220] O' Hara, "The Implications of Thomas Berry's Cosmology for an Understanding of the Spiritual Dimensions of Human Health", 183.

"wellbeing of the Earth is primary". Planetary health is a condition for the wellbeing of all its component parts. The Earth, because of its essential interrelated nature, does not survive and flourish "in fragments".[221] Berry reminds us that we have emerged from cosmogenic processes through which we are formed and sustained. We cannot survive without them, while the Earth can most certainly survive without us.[222] We simply "cannot have well humans on a sick planet, not even with all our medical science".[223] Obvious though this perspective may seem it nevertheless "runs counter to our usual approach to health and illness" since we consciously persist in economic, industrial, scientific and personal practices which threaten planetary and human health, and "continue to assume that good medical care is the prime determinant of our personal health".[224] Berry warns against practices that compromise planetary health. Health care itself must first of all be Earth care. Even in its concerns for human wellbeing it must seek out the reality of our integration with the whole planet and with all its component entities.

This is an approach which differs considerably from our contemporary medical model in which most research is directed toward the isolation of single causation and clinical practice is geared toward the eradication or therapeutic manipulation of the causative entity. Recent approaches in genetic research and medicine are generally illustrative of such an approach. When we are confronted with currently incurable disease the tendency is to believe that given time and enough sophisticated research and technology we will eventually combat that disease. We are, claims Berry, spellbound

[221] Swimme and Berry, *The Universe Story*, 243.
[222] O' Hara, "The Implications of Thomas Berry's Cosmology for an Understanding of the Spiritual Dimensions of Human Health", 183.
[223] Swimme and Berry, *The Universe Story*, 257.
[224] O' Hara, "The Implications of Thomas Berry's Cosmology for an Understanding of the Spiritual Dimensions of Human Health", 183.

by the myth of science.[225] This Berry sees as a central problem. It is, he claims, "a deep cultural pathology" for which a correspondingly "deep cultural therapy" is needed. Such a therapy must vigorously address our ongoing "commitment to a discontinuity between the non-human and the human and giving all the inherent values and all rights to the human".[226] It is in this respect that Berry, I believe, brings his greatest challenge and contribution to all disciplines, especially to medicine and to most current theology, disciplines which as I have earlier suggested, continue to be dominated by anthropocentric conceptions. The deep cultural therapy that Berry proposes requires a myth that is able to replace the current myths of constant scientific, economic, technological and industrial progress. What is needed he maintains is a primary myth that restores us to a sense of the mystery of the land, one that reawakens in us a sense of our place and time in cosmogenesis; a myth that restores right relationship.[227]

With respect to medicine in particular, Berry argues that such an understanding requires that the profession of medicine see itself as part of the profession of ecology since human health and wellbeing cannot be separated from that of ecosystem health and wellbeing.[228] Furthermore,

> Medicine in this context would envisage the Earth as primary healer. It would also envisage integration with Earth's functioning as the primary basis of health for the human being. The role of the physician would be to assist in interpreting the earth-human relationship and guiding the human community in its intercommunion with the Earth, with its air and water and sunlight, with its nourishment and the opportunity it offers for the expression of human physical capacities.[229]

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[225] Berry and Clark, "Befriending the Earth: A Theology of Reconciliation between Humans and the Earth," 100.
[226] Berry, "An Ecologically Sensitive Spirituality," 6.
[227] Berry, *The Dream of the Earth*, 32-33.
[228] O' Hara, "The Implications of Thomas Berry's Cosmology for an Understanding of the Spiritual Dimensions of Human Health", 187.
[229] Berry, *The Dream of the Earth*, 104.

The physician that Berry has in mind here is one who would reverse the almost exclusive dependence upon technological interventions for health, preferring the development of skills which engage those processes "whereby living creatures achieve integral well-being".[230] Berry's perspective resonates with that expressed by Van Rensselaer Potter. In neither case do I believe that they are eschewing many of the gifts of contemporary medicine but they remind us of the critical importance of a primary context for the practice of medicine. In aligning medicine and ecology, Berry is probably not proposing that medicine becomes part of ecology in a literal manner. Rather, he underscores the urgent need for a more ecological perspective, without which medicine and healthcare more generally are ignoring a vital factor in human health and a "philosophical perspective necessary for human survival".[231] As Berry observes:

> The profession of medicine must now consider its role, not only within the context of human society, but within the context of the earth process. A healing of the earth is a prerequisite for the healing of the human. Adjustment of the human to the conditions and restraints of the natural world constitutes the primary medical prescription for human well-being. The medical profession needs to establish a way of sustaining the species as well as the individual if the human is to be viable as a species within the community of species.[232]

In this way, Berry proposes a radical re-orientation of medicine. It is a re-orientation that in the light of all I have maintained thus far in this thesis is vitally needed. Its dependence on the articulation and espousal of an ecological perspective means, I believe, that Berry's underlying functional cosmology may be exceptionally helpful in support of its realization. In particular, Berry's thorough rejection of an anthropocentric perspective is critical. I do not take this to mean, however, that the earth-affirming theology and Church teachings I have earlier detailed have no place. Indeed, if what is

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[230] Thomas Berry, "A New Era: Healing the Injuries We Have Inflicted on Our Planet," *Health Progress* 73, no. 2 (1992): 60-63, at 62.
[231] O' Hara, "The Implications of Thomas Berry's Cosmology for an Understanding of the Spiritual Dimensions of Human Health", 190.
[232] Berry, *The Great Work: Our Way into the Future*, 67.

urgently required is a more ecological perspective then I believe that they have much to offer for a process of radical cultural re-orientation for survival and health. Aspects of the theological tradition, recent ecotheology and ecclesial initiatives have an important place at the contemporary table of public dialogue on health care and bioethics. They are substantively imbued with rich reflection on the profound and troubling questions of our age. For many people of faith, especially those who find Berry's voice too strident or abstract, they may be particularly morally persuasive. At the same time such theological perspectives find common ground with the views of those unable to embrace a theological paradigm. Thus, they enable shared discourse and action. Nonetheless, Berry's challenge remains; our anthropocentric notions, especially those that continue to pervade theology, medicine and bioethics must be reconsidered if we are really to achieve the level of re-orientation that is needed. That re-orientation is a cultural, philosophical and religious one and as discussed above, it has profound implications for our understandings of health, illness and the practice of medicine. If that is the case, moreover, it cannot but have profound implications too for our understandings of bioethics. For, if bioethics is to have integrity as a discipline it must challenge current conceptions of health and health care in the light of the circumstances in which we find ourselves. It must continue to critique, and where appropriate, to support new conceptions of health and health care. Further, if those new conceptions require an ecological perspective as suggested above, then the bioethics that accompanies them must similarly be grounded in an ecological perspective. Thus, the fresh engagement of theological approaches and Church teachings have their place in creating a new vision and conceptualization of bioethics just as they did at the beginning of the discipline in the 1960s. So too does Berry's challenging articulation of the New Story.

A problem remains, however. For to date, those who propose an ecological vision of bioethics have not been clear, detailed or practical in their articulation of it. Others are seemingly invited to begin that task. In my next and final chapter I will, therefore, attempt to envision a more explicit ecological bioethics. I will reflect on its theoretical expression, its application at the research bench, by "the patient's bedside", in the academy that prepares health professionals and present in public dialogue.

CHAPTER FIVE

GIVING NEW SHAPE TO BIOETHICS: AN ECOLOGICAL MODEL

The environmental situation is unfolding even as we write. Still, environmental decline has been an increasingly well-recognized part of our social and material reality for many decades. Bioethics faces the challenge of coming to terms with this reality.
Jessica Pierce and Andrew Jameton: The Ethics of Environmentally Responsible Health Care.

In their recent book, *The Ethics of Environmentally Responsible Health Care*, Jessica Pierce and Andrew Jameton maintain: "As resilient and vital as bioethics has been, over the four-decade course of its development, issues of global survival and responsibility have been largely absent from its discussions". They conclude, "Bioethics risks irrelevance if it continues to ignore these issues".[1] It was with similar sentiments that I began my thesis. In the preceding chapters I have attempted to provide a critical evaluation of bioethics today. Through an overview of current global circumstances and their relevance for conceptions of health and health care, I have tried to demonstrate the inadequacy of contemporary bioethics to fulfill its purported role. I have suggested that what is needed today is a more ecological model of bioethics. I agree with Pierce and Jameton that unless bioethics does become more ecologically shaped, it risks irrelevance. Crucial questions about the nature of health, the delivery of health care and

[1] Jessica Pierce and Andrew Jameton, *The Ethics of Environmentally Responsible Health Care* (Oxford/New York: Oxford University Press, 2004), 6. This recently published book came to my attention during my final research for this, my concluding chapter. Many of its themes correspond with and confirm those I have expressed in this work. In their text Pierce and Jameton focus primarily on environmental decline, environmentally related health concerns and practical approaches within the health care setting that are needed to respond to such concerns. They devote a chapter, for example, to the possible development of a "Green Health Center" (Chapter 5). In their final two chapters they specifically address bioethical concerns and they make some valuable contributions for possible new ways of looking at bioethics in the context of environmental decline. In this respect I believe that they very effectively begin to extend the thoughts of Van Rensselaer Potter, Peter Whitehouse and Daniel Callahan regarding a more environmentally shaped bioethics. This content has been exceptionally helpful to me in the development of my final chapter. Nonetheless, I believe that more can be added to the shaping of bioethics for today. Pierce and Jameton, for example, do not consider bioethics theory beyond the scope of principles, valuable though their articulation of principles is. Further, they do not consider education in bioethics or the employment of bioethicists, topics that, in my view, must be aired if bioethics is to fulfill its role for our time. In this chapter, I will, therefore, attempt to contribute further to the discussion.

the future well-being and survival of humanity and the biosphere will fail to be adequately voiced. Already, foundations exist for the development of a more relevant bioethics. They are foundations that have been established through the work of Van Rensselaer Potter, Peter Whitehouse, Daniel Callahan and Thomas Berry. The recent writing of Pierce and Jameton help augment these foundations, nonetheless, further building of a new model of bioethics is needed.

I have suggested that, among many contributions that may inform and enhance the building of a new model of bioethics, insights and experiences derived from ecology and theology may be especially helpful. It must be kept in mind, however, that neither ecology nor theology is a static entity. A romanticized or scientifically inaccurate understanding of ecology is not helpful. Indeed, it may turn out to be highly counterproductive in meeting the moral challenges posed in the contemporary and scientific world.[2] Similarly, theology that remains closed to some revision of its concepts and expressions in the real world of experience and change cannot helpfully enter into dialogue with others. The riches it might bring to the table of moral struggle may be lost through fundamentalist or intransigent attitudes. This is not to say, however, that time-honored theological insights are irrelevant for the shaping of bioethics as I have discussed in Chapters 3 and 4. Indeed, I will now go on to further suggest that some of these, namely insights about virtue, yield valuable contributions for a new and relevant bioethics.

In this final chapter I will provide my understanding of the concept of an ecological model of bioethics. I will describe possible ways of enhancing and developing

[2] For a helpful reflection on the nature of ecological understanding see: Deane-Drummond, *The Ethics of Nature*, 36-38.

the theory of bioethics incorporating ecological concepts. At points within my discussions I will suggest ways in which theology may support or complement such theoretical foundations. I will then go on to examine some applications of such theory for the role of bioethics for health care institutions, in the development of policy, by the patient's bedside, and beyond to the wider community. I will also include some remarks concerning bioethics education and the employment of bioethicists. For practical reflection I will include examples and cases, where I see them to be helpful, that I have encountered in my work as a bioethicist.

An Ecological Model of Bioethics: An Understanding of the Concept

In this thesis I have outlined what I see to be major moral difficulties in current conceptions of bioethics. Increasingly, empirical evidence points to a clear correlation between health and environmental factors. As Pierce and Jameton point out, "For many people who strive to live a good life, a moral framework is needed to establish the relevance of this information, particularly for those thinking about the good life in the context of healthcare".[3] While not denying the clearly beneficial contributions of bioethics over the past forty years or so, something more than its narrow focus is needed to provide a relevant moral framework for today's global health context. What is needed, I have argued, is the development of an ecological model of bioethics.

The model I propose encompasses recognition of an essential relationship, between humans, other living species and the biosphere. It entails the view that human and environmental life, health and well-being are, in many essential ways, inseparable. Priority is not necessarily given to human interests. Therefore, an ecological model of bioethics locates human interests and moral responsibilities within the context of the

[3] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 111.

interests of other species and entities and it does so with respect to scientific development, the application of technology, and the goals and delivery of health care.[4] An ecological model of bioethics, moreover, facilitates response to current and changing global circumstances. It is proactive in framing and posing questions concerning possible moral and practical consequences of present intentions and actions.[5] As Van Rensselaer Potter would have it, such a model of bioethics forms a "Bridge to the Future".[6] It is concerned with human and biosphere survival. More than that, it is concerned not only with "mere survival", which implies access to "food, shelter and reproductive maintenance", but with "acceptable survival" - a long-term concept of survival - and a concept akin to notions of flourishing according to the nature of each species and for the biosphere itself. "Acceptable survival", Potter further maintains, entails moral constraint for the preservation and well-being of other species and entities.[7] The development of such a model of bioethics, I have suggested, finds support from various theological perspectives, some of which I have described in my historical survey of the Christian ecological tradition, in Chapter 3. The tradition's central themes, namely, the intrinsic value of all life created by God, the revelatory character of the diversity of creation, human dependence on and responsibility for creation, creation's participation in redemption, and human partnership in God's creative work, all affirm, in my view, the features of the bioethics model I am describing above. Similarly, ecclesial initiatives,

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[4] It should be noted however, that acceptance of this relational dynamic does not necessarily entail the espousal of biocentrism. Nonetheless, it seems to me, that in order to recognize such a moral ordering of relationship and to act upon it, a rejection of unquestioned and un-nuanced anthropocentrism, characteristic of much scientific and theological thought, is necessary. For this reason, I believe that Elizabeth Johnson and Thomas Berry are right to insist that a turn from extreme anthropocentrism must be made if we are to recognize moral obligations toward other species and the biosphere.

[5] By this statement I mean that an appropriate place for consideration of consequences is found in such a model. Given its primary foundation in the nature of relationships and corresponding obligations, on which I will later elaborate it does not, however, rely predominantly on a simplistic risk/benefit analysis.

[6] Potter, *Bioethics: Bridge to the Future*. See also: Potter, "Getting to the Year 3000: Can Global Bioethics Overcome Evolution's Fatal Flaw?."

[7] Potter and Potter, "Global Bioethics: Converting Sustainable Development to Global Survival."

described in Chapter 4, urge the development of a bioethics more relational in character and more ecologically sensitive and responsive. The message of the churches is very clear: What is urgently needed, in the light of current environmental and human suffering, is an ecological conversion underpinning an integrated bioethics. What then might such a bioethics look like in theory and in practice? Perhaps a preliminary clue is provided by theologian Lisa Sowle Cahill.

A New look at Bioethics Theory

In a recent lecture, Cahill described her view of Catholic bioethics at the present time. She stated:

> As we open the twenty-first century, the orientation of Catholic bioethics is different than it was for the greater part of the twentieth. The very term "*bio*ethics" expands our vision to life and health outside the delimited context of healthcare facilities and "medical" interventions. It even suggests that human life is and should be integrated with all life and the entire natural environment. Individual life and health now must be seen in the perspective of the common good – not just of the family, local community, province, nation, region, or continent, but of all human societies and life on the planet.[8]

The extent to which such an integrated and ecologically shaped bioethics, directed toward the common good, is representative of the field within Catholic circles and institutions is unclear. There, are however, some promising signs.

The recently revised *Health Ethics Guide* developed by the Catholic Health Association of Canada, [CHAC] for example, makes clear reference to an understanding of the common good that is rooted in conceptions of interconnectedness. The *Guide* states, "This fundamental value [interconnectedness] affirms the interconnectedness of every human being with all persons, with all of creation, and with God." Moreover, "The

[8] Lisa Sowle Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004* (Milwaukee: Marquette University Press, 2004), 8-9.

Scriptures present a view of creation as both gift and responsibility".[9] By extension, therefore, the Association maintains that "the common good includes environmental concerns that have a direct relationship to the good of individuals and of society".[10] Further, given the disproportionate burden of environmentally-induced and related suffering borne by the poor, the Association flags the preferential option for the poor as a central feature of Catholic bioethics. It claims that solidarity, a contemporary manifestation of Christian charity, is a response "explicitly articulated in Church teaching which exhorts individuals, organizations and those who develop public policy to a preferential option for the poor and marginalized".[11] This is, at least, a beginning.

The statements of the CHAC paint a picture of an integrated vision of bioethics.[12]

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[9] Catholic Health Association of Canada, *Health Ethics Guide*, 11. In expressing interconnectedness as a value in this manner the Association makes reference to the *Pastoral Constitution of the Church in the Modern World* #27, #29. See: Flannery, ed., *Vatican Council 11: The Conciliar and Post Conciliar Documents*, 928-29. I would note, however, that the Conciliar documents to which the Association makes reference here are more anthropocentric in their expression than the interpretation given them by the Association. The understanding of creation as "both gift and responsibility" continues to emphasize the concept of human stewardship which has been a central feature of much Christian theology through the ages. A notion of stewardship is problematic, however. For, while stewardship affirms a respect and care for creation, it is commonly associated with an impersonal stance toward it. Its active managerial emphasis too easily implies condescension toward non-human nature. Therefore, as Celia Deane Drummond remarks, "the difficulty remains that our basic attitudes to the natural world still go unchallenged". See: Deane-Drummond, *The Ethics of Nature*, ix. To be fair to the Catholic Health Association of Canada in this context, however, its authors do, within their explication of stewardship, go on to consider respecting the world's "true nature", implying an appreciation of the intrinsic value of creation and each of its diverse entities.

[10] Catholic Health Association of Canada, *Health Ethics Guide*, 12. While this statement clearly shows a promising extension of earlier conceptions of the common good to the environment, a sense of the instrumental value of creation, characteristic of Catholic mainstream theology, persists.

[11] Ibid.

[12] It is difficult to assess whether or not such theory is, at this time, simply window-dressing. Its incorporation into Catholic health care and bioethics practice remains largely unclear. However, some evidence gained through my own recent professional practice does seem to suggest a slight, if sometimes peripheral shift, along these lines. For example, the large city, Roman Catholic hospital, in which I was until recently employed as a clinical ethicist, directed me to develop services for a geographically-wide rural area. These bioethics services were not to focus on typical acute care concerns but rather they were to begin to address local health and social issues, many of which were generated by the loss of the long-term agricultural base of the community and corresponding 'creeping' urbanization. Bioethics colleagues in another vast Roman Catholic health care complex are closely involved in the commitments of a newly founded

It is a development that is perhaps not surprising, given that historically, the Catholic concept of the common good has linked the individual person to the wider society by "insisting that the intrinsic sociality of persons demands their interdependence, communication, solidarity, and co-responsibility".[13] This perspective seems to quite naturally prepare the ground for an extended understanding of the common good to include the good of non-human nature. Therefore, it is also an obvious precursor to an integrated understanding of bioethics. What of bioethics more generally, however? Is it possible to develop a similarly integrated, ecologically sensitive conception of bioethics theory without the theological foothold implicit in Catholic bioethics or more broadly, religious bioethics? What approaches would be needed to do so and can theology be a helpful partner in the process? These are the questions I will go on to address. For as I have earlier claimed, in the light of present global circumstances, all bioethics must become integrated in the manner I have begun to describe above or risk irrelevance.

Jessica Pierce and Andrew Jameton, in their appeal to ecology as a model for bioethics, suggest that the theory of such a bioethics might include the principles of beneficence, non-maleficence, autonomy and justice that have been the mainstay of bioethics since its inception. They do not, however, naively discount valid criticism of the

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urban health center which functions out of their largest hospital. This center deals with health and ethical issues associated with rapid urbanization and migration. Its research and care focuses closely on the concerns of the poor and marginalized including 'street people' and recent immigrants, some of whom are environmental refugees or those fleeing violence. Staff researchers examine urban health problems including patterns of infection transmission in cities and the effects of poor housing on the health and well-being of the most vulnerable people. Bioethics services for this center have included input into its initial planning, ongoing bioethics consultation for those using its services and for staff, professional and public bioethics education, research evaluation and participation. These examples, I believe, begin to demonstrate the practical application of a theory of integrated bioethics.

[13] Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 9.Two helpful works describe and critique this Catholic tradition in detail. See: Brian Stiltner, *Religion and the Common Good:Catholic Contributions to Building a Liberal Society* (Lanham, MA: Rowman & Littlefield Publishers, Inc., 1999). See also: David Hollenbach, *The Common Good and Christian Ethics* (Cambridge: Cambridge University Press, 2002).

limits of principlism to which I have earlier alluded. Instead, they maintain that principles are necessarily "vague". They state:

> Although these concepts [beneficence, non-maleficence, autonomy and justice], are vague, retaining this common vocabulary serves a practical purpose as bioethics takes on the more inclusive moral challenges of our deteriorating habitat. Problem-solving application of accepted principles and methods to new situations and conditions can begin immediately. Without much reflection on theory or principles, bioethicists, clinicians, and patients can more intuitively integrate a fresh consciousness of their global situation that might lead them to make different decisions simply because their understanding of the facts is so different. For example, patients might be more willing to limit care; clinicians might gently discourage expensive care that simply prolongs dying; ethicists might write more about problems relating to materials and services. The principles and grounding of ethics will not have changed dramatically, only our perception of the reality around us.[14]

I have concerns, however, that Pierce and Jameton, despite their acknowledgement of the limits of principle, do not go on to discuss what more might be needed for the development of a more adequate model of bioethics. Nonetheless, I agree with them that bioethical principles may serve a helpful purpose. For, just as they did at the dawn of bioethics, principles may help us now to give shape to our reasoning and intuitions when we are confronted with "novel moral challenges and they remind us of key questions to be explored".[15] These considerations, it seems to me, are important at this time when despite strong evidence of environmental decline and its relationship to health and wellbeing, limited attention is being paid to the novel or newly perceived moral issues this evidence raises. Few related questions are being explored in the fields of bioethics and health care.[16] Thus, if principles can help raise awareness and guide questioning and moral response, then they remain relevant as a part, albeit a limited

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[14] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 116.

[15] Alastair V. Campbell, "The Virtues (and Vices) of the Four Principles," *Journal of Medical Ethics* 29, no. 5 (2003): 292-96, at 93.

[16] In a recent article, Erich Loewy and Roberta Loewy, discuss ways in which bioethicists and their organizations fail to address broad issues of social responsibility, issues that they claim "underwrite the possibility of bioethics" today. This situation, the Loewys argue, totally compromises both the integrity and the professional standing of bioethics. See: Erich H. Loewy and Roberta Springer Loewy, "Use and Abuse of Bioethics: Integrity and Professional Standing," *Health Care Analysis* 13, no. 1 (2005): 73-86.

part, of the theory of bioethics.[17] For the principles of beneficence, non-maleficence, autonomy and justice to serve in the manner suggested above, however, I am in agreement with Pierce and Jameton that further specification of these principles is needed. Such specification must reflect "awareness of environmental responsibility", and the "integration of key environmental value into the discussion of bioethics".[18]

Environmental value, based on ecological concepts of relationship and interdependence, is already variously expressed in a range of principles developed in the field of environmental ethics. Pierce and Jameton note that these fundamental environmental principles are: "sustainability, a fair distribution of environmental benefits and burdens, modesty of consumption, responsibility to nature and future generations". They believe that these principles, collectively named principles of sustainability, "should become central guiding principles of discussion" in bioethics. That is, they might serve as a foundation for the specification, development and enrichment of established principles of bioethics.[19] Therefore, I will now examine the traditional bioethics principles as they might look and serve bioethics function if integrated with environmental

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[17] It is my view that Callahan might also be in some agreement with a limited application of principles in this sense. For he says, "One ought not to have to be a philosopher to deal with the moral problems of clinical medicine or, for that matter, of health policy. It is helpful [and here he is referring to the function of principlism], to have some reasonably clean ways to cut through the experiential and social dimensions of actual decision making, where time and knowledge are limited. On that score, principlism achieves one of its purposes, which has been that of finding a middle range of useful relatively clear principles." See: Callahan, "Principlism and Communitarianism," 288.

[18] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 116.

[19] Ibid. Beauchamp and Childress, in response to criticism of their influential development of a principlist approach to bioethics, agree that specification is essential in the context of changing or newly apprehended circumstances. They claim: Specification holds out the possibility of a continually expanding normative viewpoint that is faithful to initial beliefs (which are not renounced) and that tightens rather than weakens co-herence among the full range of accepted norms. See: "Tom L. Beauchamp and James F. Childress, *Principles of Biomedical Ethics*, 4 ed. (New York: Oxford University Press, 1994), 31. On the basis of a similar argument, Pierce and Jameton claim that: "The norms widely accepted in medical ethics discussions and practice can evolve in response to the environmental challenge." Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 117.

principles of sustainability.[20]

- **Beneficence and Non-Maleficence**

The entwined principles of beneficence and non-maleficence express, in contemporary terms, traditional duties of the clinician to do good for the patient and correspondingly, to do no harm. As described in Chapter 1, these duties have historically defined the nature of the doctor-patient relationship and they have been incorporated into the codes of ethical conduct of all other registered health professionals. In the field of bioethics, the principles of beneficence and non-maleficence have been generally, but not exclusively, applied to individual patient care. In the world of modern medicine, for example, they have been brought to bear on difficult decision-making processes in circumstances in which it is unclear as to what constitutes the balance of good and harm of a proposed intervention for a particular patient. Examples include decisions to use or forego invasive technological interventions for critically-ill or dying patients, to conduct predictive genetic testing for serious life-changing or fatal illnesses,[21] or to use experimental therapies for a dying patient for whom all other possible standard interventions have been exhausted.[22] In some limited circumstances bioethics has employed the principles of beneficence and non-maleficence to explore issues beyond

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[20] In doing this I will follow the sequencing of principles that Pierce and Jameton use. My reflections on the principles do, however, stem from my own years of experience as a clinical bioethicist and they extend some of the points contributed in Pierce and Jameton's book. I nonetheless acknowledge with gratitude here, points of affirmation and clarification that I have gained from my reading of Pierce and Jameton's recent publication. For their discussion of expanded bioethics principles see: Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 117-24.

[21] See for example: Kimberley Quaid, "Predictive Testing for Huntington's Disease: Maximizing Patient Autonomy," *Journal of Clinical Ethics* 2 (1991): 238-40. Dena Davis, "Genetic Dilemmas and the Child's Right to an Open Future," *Hastings Center Report* 27, no. 2 (1997): 7-15. Cynthia B. Cohen, "Wrestling with the Future: Should We Test Children for Adult-Onset Genetic Conditions?," *Kennedy Institute of Ethics Journal* 8, no. 2 (1998): 111-30.

[22] An example is provided in: Sylvain Baruchel and Mary Rowell, "Pharmacology of Cancer Chemotherapy in Pediatrics: Feasibility and Ethical Considerations in Phase 1 Trials," *Balliere's Clinical Pediatrics* 6, no. 3 (1998): 439-53.

the patient's bedside. The vaccination of children for the protection of others, quarantine and notification provisions to prevent the spread of infection and breach of patient confidentiality to prevent harm to others are cases in point.[23] Some bioethicists have raised questions about whether doctors and other health professionals have community and social obligations to address issues such as access to health care, poverty, housing and human rights, but such initiatives are rare.[24] The integration of principles of bioethics with those that express ecological concepts of human/non-human relationship and interdependence may, however, change the picture significantly.

Given such integration, a principle of beneficence has a much wider sweep. For example, commitment to the good of an individual patient is retained but is understood in the context of the good of other humans and of the natural world. The good of the individual is not divorced from those other goods. Therefore, questions of social obligation become a central feature of bioethics discussions and decision-making. The good of future generations and environmental good in terms of survival, health and flourishing are also key considerations to be set alongside individual good for purposes of moral discernment. Fundamental questions about the nature of health and healthcare, commonly avoided in current bioethics, take a front and center place, and they do so dynamically. By this I mean that these questions must be asked on a continuing basis as global and social circumstances change and as scientific evidence is revised in the light of new data, changing interpretations, or experience. Nonetheless, the basic concept of health and health care as 'goods' remains intact while our understandings of what

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[23] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 117. On the matter of confidentiality and community risk see: Mary Rowell, Mona Sidarous, and Susan Talett, "Should You Keep a Secret? Confidentiality and Truthfulness," *Annals RCPSC* Fall Supplement (1999).

[24] See for example: Loewy and Loewy, "Use and Abuse of Bioethics: Integrity and Professional Standing."

constitutes the nature of good for health and in health care may evolve.

A principle of non-maleficence also becomes broader in scope. "First do no harm", in light of ecological insights and environmental principles includes, but reaches beyond, the patient's bedside. It reaches beyond healthcare as well. Healthcare professionals are seen to have moral obligations not only to avoid harm to other humans but also to avoid harm to other living beings and the biosphere. This entails that concepts of harm be re-defined. Currently, harm as understood in bioethics and health care practice is generally taken to mean individual human harm. Recently, however, in an encouraging move, The University of Nebraska Medical Center has produced its own set of principles, some of which reflect a revised understanding of harm and an enhanced interpretation of the principle of non-maleficence. The principle of non-maleficence, integrated with a principle of interconnectedness, for example, the authors say, requires that thought be given to the far-reaching consequences, some potentially harmful, of systems of health care delivery and medical techniques.[25] A broader ecologically-shaped principle of non-maleficence therefore requires that bioethics begin to focus on the health care system's harmful impact on the environment, and thus in turn, on human health and social wellbeing. Current hospital design, systems of health care delivery, and many technological and clinical tools and interventions are exceedingly wasteful and destructive to the environment.[26] Yet, such issues are rarely

[25] University of Nebraska Medical Center, *Environmental Principles* (December 16, 2004 [cited July 31, 2005]); available from http://www.unmc.edu/psm/students/ice/ethicsbook/environment-health-principles.htm. It is interesting to note that the Center's initiative to develop environmental principles was influenced by the work of Andrew Jameton who is Professor of Humanities and Law on the staff of the Center.

[26] Pierce and Jameton devote an entire chapter in their book to the "Environmental Aspects of Health Care". They provide a detailed account of the numerous ways in which the health care systems of industrialized countries contribute to environmental degradation and destruction. These factors include: dependence on fossil fuels for production purposes; the consumption of vast amounts of plastics, medicinal plants, electricity, water, chemicals, minerals, paper and concrete; poor design of large hospitals which require huge parking lots and numerous service

evident on the 'radar screens' of bioethics and in the discipline's application of a principle of non-maleficence. On this point, Pierce and Jameton comment:

> When the full cost to the life of the earth is put into the balance, everyday decisions unquestioned by ethicists and regarded as rational and even praiseworthy may be seen as questionable and possibly maleficent. If non-maleficence is viewed from an environmental perspective in the form of the precautionary principle, many health care activities probably do at least as much harm to the world as good.[27]

Even these brief reflections, I believe, demonstrate that the integration of ecological principles with the traditional principles of beneficence and non-maleficence would radically shift understandings of the scope and perceptions of the functions of bioethics. Similar claims may be made with respect to the principles of autonomy and justice.

- **Autonomy**

In Chapter 1, I argued that autonomy has come to dominate all the standard principles of bioethics. This state of affairs has led Daniel Callahan to remark:

> While it [autonomy] is putatively only one of the four principles, in the uses of principlism I have noticed over the years the other principles seem ineluctably to lead back to it. Non-maleficence, for instance, comes down to a right not to have our mind or body harmed by another, to be left intact; and that is a historical

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buildings that interfere with water flow, destroy vegetation, reflect heat and contribute to high levels of local pollution; and the production of large amounts of toxic, infectious, allergenic and radioactive wastes. They also note the rapid rate of technological development in modern medicine that results in a correspondingly "rapid and costly obsolescence of capital equipment". See: Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 43-60. In an illuminating study of a pediatric intensive care unit (PICU), George Simbruner provides startling details of hospital waste. By extrapolation he estimates that a typical PICU would produce waste consisting of 4000 syringes per week and a comparable number of latex gloves and over a year, 10,000 large waste bags containing such items as medical products, glass and hazardous waste. Simbruner's study convinced him that professionals responsible for the care of sick children do have responsibilities and obligations to address all ecological damage these children will inherit. See: George Simbruner, "Ecological Impact of Pediatric Intensive Care," *Critical Care Medicine* 21, no. 9 Supplement (1993): 399.

[27] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 119. To make their point here Pierce and Jameton cite the work of: Linda Kohn, Janet Corrigan, and Molla Donaldson, eds., *To Err Is Human: Building a Safer Health System* (Washington, D.C.: National Academy Press, 2000).

variant of autonomy.[28]

Callahan's point about the conception of autonomy being "a historical variant" is important. Most commentators on contemporary bioethics situate modern understandings of autonomy in the influential philosophy of Immanuel Kant. To justify the dominant position that autonomy has come to hold by reference to Kant is, however, not entirely accurate. For in Kant's comprehensive work on autonomy, in which his objective is to establish the place of free will in his philosophical framework, it is clear that his conception of autonomy is significantly different from contemporary applications of it as seen in bioethics.[29]

Importantly, Kant's conception of autonomy is not that of contemporary wants-based liberalism, which owes more to utilitarianism for its articulation than to Kantian theory. Rather, autonomy according to Kant, involves acting in accordance with reason, which in turn requires acting in accordance with universalizable maxims identifiable by reason. Universalizable maxims necessarily require an attention to and respect for other persons - their rules for living, and their goals. This oftentimes places limits on the choices or actions of the individual, demanding self-restraint or self-transcendence.[30] Such notions of obligation beyond the self rarely figure in the applications of autonomy within contemporary bioethics. For a principle of autonomy in bioethics has become synonymous with individualistic notions of self-determination. These are generally directed toward to fulfillment of personal goals and desires regardless of whether or not those goals and desires are compatible with or facilitate the goals and desires of others.

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[28] Callahan, "Principlism and Communitarianism," 288.

[29] Kant's notion of autonomy is set out clearly in his *Groundwork of the Metaphysic of Morals* (1785). The translated version with commentary that I have used for this work is: Immanuel Kant, *The Moral Law: Groundwork of the Metaphysic of Morals*, trans. Herbert J. Paton (London: Hutchinson, 1972).

[30] Roger J. Sullivan, *Immanuel Kant's Moral Theory* (Cambridge: Cambridge University Press, 1989), 47.

It is this somewhat thin notion of autonomy that is profoundly challenged by the incorporation of ecological concepts into bioethics.

Ecological concepts of relationship, at very least, call for a richer and more nuanced notion of the principle of autonomy, a notion more akin to that expressed in the fullness of Kantian conceptions of universalizability. For as Pierce and Jameton claim such conceptions point to the fact that: "Autonomous individuals exist as members of a moral community who share common ends".[31] Individuals have freedom and appropriate self-regard, but they also have obligations within community, human and biotic, of which they are but a part in relationship.[32] An ecological ethics is thus, essentially a communitarian ethic.[33]

A richer notion of autonomy in this context may guide respect for human dignity and goals while avoiding the reductionism that equates the principle solely with individual desires and choices. Pierce and Jameton note that autonomy "must be placed in proper relationship to the concept of connection". They continue: "Although in conventional bioethics obligations derive from sincere convictions of the autonomous individual, the ecological concept of obligation is more intimately grounded in connection than autonomy."[34] This perspective reflects a notion of the 'self' as in some way essentially defined by relationships. Does this argument mean, however, that within an ecological model of bioethics a clear concept of autonomy is lost? I do not believe this to be the case. I believe rather, that an expression of self determination in the light of the

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[31] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care.*
[32] I will later return to consider whether Pierce and Jameton's extension of a principle of autonomy, to embrace non-human community, is feasible given meanings of the term.
[33] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics," 503-05.
[34] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 120.

needs and wellbeing of the wider community may still be construed as a full and valid expression of self determination.[35] It becomes self-determination sensitive and responsive to the needs of the other, balancing a commitment to individual rights with an emphasis on responsibility. Choices are made not solely on the basis of individual wants and needs but rather with reference to the ways in which my individual wants and needs enhance or impact positively or negatively the wants and needs of the other. This understanding is more in line, as I have demonstrated earlier, with notions of a bioethics of responsibility set out by Van Rensellaer Potter at the conception of the discipline. For such an understanding of autonomy to be accepted in many modern societies, however, a considerable conceptual shift will be required so that the expression of personal choice is understood in the light of obligations to one another and to nature as well as to self.[36]

A shift of this kind will not be easy given the thorough entrenchment of current conceptions of autonomy in many societies, particularly those that already possess modern 'high-tech' healthcare systems. Thus Pierce and Jameton express an important point when they claim that "for autonomy to be maximized in a sustainable context individuals need to be able to participate, and feel they are participating, in decisions that set social [including health] priorities to protect humans and nature".[37] Callahan holds a similar position. He also believes, as I do, that a process of public participation is vital if

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[35] There may be some concern that a reconstruction of the principle of autonomy in this manner amounts to a subtle form of coercion or a return to the traditional 'paternalism' of medicine. There may be some truth to this. As Pierce and Jameton point out, however, any sustainable health care system will inevitably limit choices of patients and doctors. They add to this the view that coercion already exists in the health care system. Patients and doctors alike are currently coerced, they maintain, by "prevailing interventionist standards and by the ready availability of heroic 'life-saving' treatments and drugs." They conclude, therefore, that if a revised understanding of autonomy is introduced, it may turn out that there is no increase in levels of coercion in health care. See: Ibid., 119.

[36] This understanding of autonomy does not entail, however, acceptance of an egalitarian stance such as that found in "deep ecology". In my view it is entirely compatible, for example, with the notion of "enlightened anthropocentrism" that Van Rensselaer Potter ultimately held.

[37] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 121.

we are to come to grips with the reality of our present global circumstances and their relevance for health care, and the relationship of a principle of autonomy to these considerations. Throwing ever-increasing funding at correspondingly ever-increasing technical medicine to expand the choices of treatment for individuals cannot be the answer. Wide community discussion of individual good relative to the good of others, and of human good relative to the good of the natural world must be initiated. As Callahan remarks: "Every member of the community ought to have a part in these discussions" and have the opportunity and freedom to "speak the language most congenial to their religious or secular views."[38] Such views, although particularistic, when they are aired in concert and/or in a context of dialogue may indeed help us toward a richer and more realistic understanding of autonomy vis-à-vis the goals of healthcare.

The common assumption today that particularistic and especially religious views have nothing to offer, or worse, are obstructive to human process and progress, does not in my view, hold meaning. For all, regardless of our culture, social context, belief system, knowledge or intelligence, come with a particularistic perspective. It is only when people with their individual perspectives can come together in respect, welcoming clarification or revision of long-held and often unexplored assumptions, and with a willingness to share their riches that we have any real hope of moving forward. By moving forward, I mean here, identifying possible common beliefs and directions, strengthened by unity, or at least identifying directions that may parallel one another and make possible, a moving on together aware of the ultimate goal of survival and flourishing. Perhaps this represents a radically optimistic hope and yet I would argue that unless steps are taken in this direction, eventually global environmental and social circumstances will force us to do so. Better, therefore, to begin now, difficult though that

[38] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics."

beginning may be, than to wait for initiating circumstances that may, by the time they compel us to action, bring with them, irreversible problems.

In the above discussion of a principle of autonomy I have largely followed, and sometimes expanded, the case made by Pierce and Jameton for an extension of the principle to allow for consideration of other persons and the biosphere. I agree that such an extension may be helpful as a component of a new theory of bioethics. Nonetheless, before proceeding to discussion of the principle of justice, I want to pause briefly to consider whether a simple extension of a principle of autonomy, in the manner outlined above, is adequate. For, it seems to me that an ecological model of bioethics may in fact require, instead of a principle of autonomy, a wider principle. Here I am referring to a principle of respect under which a principle of autonomy may be subsumed. For the problem, as I see it, is that the concept of autonomy cannot be uprooted easily from its current entrenchment in notions of the human person. Even an understanding of a principle of respect carries with it some similar difficulties. My sense is, however, that these difficulties can more easily be overcome when considering a principle of respect than when considering autonomy.

- **Respect**

A principle of respect already has a fundamental place in contemporary bioethics. As I have indicated in Chapter 1, The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research made a principle of respect a primary principle in *The Belmont Report* which played such an essential part in the

birth of bioethics.[39] The Report, however, enunciated the principle of respect as a principle of "respect for persons". Moreover, as Karen Lebacqz has pointed out, although the Commission intended respect to apply to both "autonomous and nonautonomous persons, later tradition generally restricted it to respect for autonomy, appearing to limit respect not simply to persons but to autonomous persons."[40] Thus, a principle of respect, as it has come to be understood in more recent bioethics, is commonly understood as reducible to a principle of personal autonomy. Lebacqz suggests that such thinking may be attributed to a poorly nuanced application of Kant's belief that the specific quality of persons that makes them worthy of respect, or of being treated as ends in themselves, is their "ability to reason and the rational will".[41]

Is respect to be understood in such a restricted way, however? Lebacqz argues that it is not – that while a person's autonomy is worthy of respect, a principle of respect can and ought to be understood in much broader terms. To begin her argument Lebacqz cites the now classic work of Robert Downie and Elizabeth Telfer, *Respect for Persons*, in which the authors maintain that respect includes both an attitude and a moral norm.[42] As an attitude respect implies thinking that someone or something is valuable. "Having respect implies that the thing should be cherished".[43] As a moral norm, and in line with Kantian tradition, respect means treating a person as an end and not merely as a means for my own ends. Furthermore, to have respect for a person "is to make that person's

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[39] The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, "The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects," (Washington D.C.: U.S Government Printing Office, 1979).
[40] Karen Lebacqz, "On the Elusive Nature of Respect," in *The Human Embryonic Stem Cell Debate: Science, Ethics, and Public Policy*, ed. Suzanne Holland, Karen Lebacqz, and Laurie Zoloth (Cambridge, MA: The MIT Press, 2001), 149-62, at 50. Karen Lebacqz' insights here are important since she was a member of the Commission that developed the Belmont Report.
[41] Ibid.
[42] Robert Downie and Elizabeth Telfer, *Respect for Persons* (New York: Schocken Books, 1970). Cited in: Lebacqz, "On the Elusive Nature of Respect," 151.
[43] Lebacqz, "On the Elusive Nature of Respect," 151.

ends my own; it here requires a kind of active sympathy."[44] Lebacqz, in the specific work to which I am referring, is attempting to demonstrate that if respect is understood in the above terms then it becomes possible to extend notions of respect to an early embryo or to embryonic tissue.[45] Her conceptual move is, however, complex since the notions of person associated with reason or the rational will to which Downie and Telfer appeal in their analysis of respect are unclear in discussions of embryos or embryonic tissue. Thus, to establish her argument, Lebacqz goes on to consider whether respect may be due to nonpersons and it is this consideration that I suggest is helpful for the identification of a principle of respect for an ecological bioethic.

Lebacqz begins with some reflection on the Jewish and Christian traditions within which God's love is commonly understood as being directed in a special way to those who are denied status as persons in their particular culture: the outcast or stranger who lack citizenship, the widow who has lost social status, the orphan without social position, the poor or those who are otherwise reviled. The Hebrew Scriptures and the New Testament abound with such examples. As I have shown in Chapters 3 and 4, this perspective finds its contemporary theological articulation in the "preferential option for the poor" and in a principle of solidarity. Thus Lebacqz points out, "Respect is owed not simply to persons, but very precisely to those who are always in danger of being cast outside the system of protection that personhood brings." She concludes that it may indeed be precisely because someone or something "is *not* considered a person that its value needs more urgently to be upheld. The requirement for respect is not diminished."[46] Respect may thus be defined as "esteem felt or shown toward a person,

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[44] Ibid.
[45] Lebacqz is here focusing on the status of the embryo or of embryonic tissue in the context of her discussion of the ethics of embryonic stem cell research.
[46] Lebacqz, "On the Elusive Nature of Respect," 153.

thing or quality" (*The Canadian Oxford Dictionary*, 2000). According to Lebacqz:

> This [she uses a similarly broad definition] suggests that we can speak of respecting a wide variety of things beyond persons: the flag, the ecosystem, religious rituals, cultural practices, scientific data, and so on. It is therefore meaningful to speak of respect in contexts in which we do not have Kantian personhood.[47]

Thus while a principle of respect encompasses respect for the autonomy of persons its scope is not limited to such regard. Specifically, respect may also be understood to embrace regard for all sentient beings including a duty not to cause them unnecessary suffering, to minimize their pain, and to proactively commit to their wellbeing and survival.[48] Respect can also be accorded plants (which do not have the physical capacity for the experience of emotion), simply on the basis of their individuation – their unique identity, constitution and ends. As Lebacqz puts it:

> Where respect for persons requires respect for the rules of the other and willingness to believe that their rules may be more correct than my own, respect for life more generally might require respect for the ways of the other, and willingness to believe that their ways have something to teach us and our perceptions may need correction.[49]

Such a sentiment is highly consistent with what I have earlier described as Van Rensellaer Potter's notion of bioethics as, "humility with responsibility", and with Thomas Berry's call for a rejection of the anthropocentrism that has governed our moral thinking to this time. It also correlates with religious understandings of the world as created, a world in which all life forms loved by God and revelatory of God, are to be respected and cared for precisely because of their uniqueness and diversity. On this point, Celia Deane-Drummond is clear. For an ethic of concern for persons and the natural world, she maintains, it is vital that we retrieve an understanding of the world as created.

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[47] Ibid.

[48] Lebacqz does concede that where necessary, and only where necessary, research for human purposes may be conducted on animals, but that care must be taken by investigators and through research protocols to ensure the least possible suffering or pain to the animals used in such studies.

[49] Lebacqz, "On the Elusive Nature of Respect."

Deane-Drummond's view is drawn from her understanding of Aquinas' strong affirmation of creation rooted in the incarnation, emphasized in the Gospel of John, and from Aquinas' assertion that "the essence of all things is that they arise from the creative activity of God, and as created their inner structure is defined."[50] Thus, Deane-Drummond concludes that it is "on account of the separate identities of other creatures that their worth can be found."[51] All life is to be respected and echoes of this view, as I have discussed in Chapter 4, are to be found in many recent Church documents dealing with the environment and those which call for a more inclusive bioethics.

Furthermore, if respect is due to individual life forms it is also due to the ecosystem itself. The traditions of ecological ethics and theology together with recent ecclesial statements emphasize this belief. Aldo Leopold, one of the great initiators of modern ecology, to whom I have referred in chapters 1 and 2, spoke of the importance of using the land with love and respect.[52] Leopold referred to the community of nature in a manner that inspired Van Rensselaer Potter to develop the concept of bioethics. Feminist theologian, Rosemary Radford Reuther has called for collaboration between ecologists and theologians such that the interdependence and interaction of all life forms might be further explored and respected.[53] Roman Catholic theologian, Drew Christiansen refers to respect for creation, and he points out that in natural law tradition, respect for nature means taking account of "the nature of each being and of its mutual connection to an ordered system."[54] Episcopal Scripture Scholar Ellen Davis speaks of

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[50] Deane-Drummond, *The Ethics of Nature*, 19.
[51] Ibid., 44.
[52] Leopold, *A Sand County Almanac and Sketches Here and There.*
[53] Radford Reuther, *New Woman: New Earth*, 203-04.
[54] Drew Christiansen, "Moral Theology, Ecology, Justice and Development," in *Covenant for a New Creation: Ethics, Religion, and Public Policy*, ed. Carol Robb and C.J. Casebolt (Maryknoll, N.Y.: Orbis Books, 1991), 256. Cited in: Lebacqz, "On the Elusive Nature of Respect," 156.

reverence for the Earth from which "reverence for God cannot be separated."[55] The papal encyclical, *Sollicitudo rei socialis* refers to respect for creation as the first of three moral guidelines to address environmental issues. Indeed, John Paul 11 was clear in his 1990 New Year message that the lack of peace in the world, environmental destruction and its devastating social consequences are largely attributable to "a lack of due respect for nature."[56] Thus, the concept or principle of respect for all of creation, for its individual parts and for the web of relationships that bind them together is clear in the field of ecology and in theology and its ecclesial expressions. As Karen Lebacqz points out, however, the precise meaning of respect is less clear.

Lebacqz, nonetheless, suggests that some relevant insights can be drawn from theories that extend respect beyond persons or sentient beings. She claims that ecological ethics offers "an affirmation of the *independent value* of other creatures and of the ecosystem itself." This, Lebacqz claims, represents "a fundamental shift from seeing nature as valuable *for us* to seeing it as valuable *in and of itself.* Thus, respect implies valuing the other." Importantly, "value exists not just because we say so or see it; it exists *apart from* our desires or perspective." Ecological ethics further provides "an understanding of the interconnection and mutual interdependence of all creation, including humans." This, Lebacqz concludes, "implies a symbiotic relationship, and to disrespect another part of creation is to harm ourselves, whether or not we realize it".[57]

Kant understood respect largely in terms of duties of omission: the duty to avoid harm, the duty not to interfere, and the duty not to detract from another. This focus on omission is marked in understandings of respect in contemporary bioethics. Ecological

[55] Davis, *Getting Involved with God: Rediscovering the Old Testament*, 182-83.
[56] John Paul II, "Peace with God the Creator, Peace with All of Creation," #1.
[57] Lebacqz, "On the Elusive Nature of Respect," 157.

ethics extends such duties of omission beyond other persons to the whole ecosystem. "It should not be harmed; it should be left alone to develop according to its intrinsic nature." Beyond duties of omission, however, an ecological ethic calls for a stance of awe and an "effort to support the flourishing of the system."[58] Lebacqz concludes her reflections in the following way:

> Thus it may be possible to speak of respect for that which is not a person, not sentient, and not even yet an individual creature, but a part of a vast and all-encompassing system of nature or creation. Respect implies seeing the intrinsic value of the other, a value not dependent on human valuation but on a larger perspective or on the role of that creature in the entire system. The value of the other is honored by seeing its life as intrinsically intertwined with our own lives.[59]

I find Lebacqz' arguments regarding respect persuasive and I suggest that they provide a very helpful way for us to re-envision a dimension of principlism for an ecologic bioethic. In my view, while a principle of autonomy might be usefully expanded as I have suggested in the previous section of this chapter, more helpful would be an abandonment of the principle of autonomy for a principle of respect in the manner proposed by Lebacqz. The adoption of a principle of respect does not lose a concept of human autonomy. Rather it subsumes, upholds and enriches it. At the same time the application of the principle has the capacity to move beyond the human to embrace all of creation and the integrity of the web of relationships upon which health and wellbeing depend. In this respect it also forms an effective fit with a principle of justice for an ecologic bioethic that I will now go on to discuss.

- **Justice**

Of all the principles thought to be relevant for bioethics, justice has been the most difficult to define and to apply. It has been commonly described as a principle of

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[58] Ibid., 158.
[59] Ibid.

political and material equality, unsatisfactory though such a definition is in practical terms, and especially so in the context of health care. Unless an extreme enunciation of deep ecology is accepted, the integration of ecological concepts with those of current bioethics does not lead to the idea of justice as equality.[60] To speak of interconnection is not to say that we are all equal. Although we face common global problems they are not experienced in the same ways, regionally or even the world over. Further, since ecology assumes a human/nature relationship with moral consequences, then it is critical that we consider the fundamental differences among species to guide our treatment of them and to inform decision making in situations of conflicting interest and wellbeing.[61] Thus, a principle of justice specified in the light of ecological concepts is not best understood in terms of equality.

Pierce and Jameton, propose instead a notion of justice as harmony. A healthy ecosystem, they claim, is one that justifies, balances and harmonizes the complex relationships of which it is comprised. They believe that this natural state of affairs provides a paradigm for just relationships that require not equality but a fairer distributive balance of resources and goods. In particular, they note that a notion of justice as harmony has explicit relevance for the linking of justice and human health patterned on homeostatic processes in the human body.[62] To a degree, Pierce and Jameton are making a helpful point. A concept of natural equilibrium does seem to provide a model for thinking about human-to-human and human-to-nature relationship. It suggests the adoption of attitudes and behaviors of moderation for the environment and toward a

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[60] As I have indicated in Chapter 1, the positions of some deep ecologists imply a moral equality between all living beings. They then have great difficulty addressing those situations in which various interests of differing species are in conflict.
[61] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 121. In the next section I will give some consideration to issues of conflict and competing interests.
[62] Ibid., 122.

more balanced distribution of human benefits and burdens. Celia Deane-Drummond warns, however, that an approach based on the balance of nature is problematic. It is so because recent ecological hypotheses show the idea of natural balance to be wanting.[63] To be fair to Pierce and Jameton, however, new scientific conclusions continue to show that a state of equilibrium is a significant feature of ecological systems some of the time. The idea of balance as it is sometimes and remarkably found in nature may, therefore, provide at least a helpful metaphor for thinking about justice. It is nonetheless, in the light of revised ecological conceptions, limited in its application. Indeed, it may even lead to false and idealistic notions about human/nature harmony from which extreme and unrealistic criticism of the application of technology may be drawn.

Deane-Drummond, in pointing out features of the revised ecology, which include understandings of continual flux within natural systems and their openness to external influences, prefers instead a model of justice found in traditional virtue theory. I will later return to consider the relevance of virtue theory with respect to the development of an ecological model of bioethics. At this point, however, it is enough to consider that traditional virtue theory holds that justice is "concerned broadly with the idea that each is given his or her due".[64] It is this conception of justice that, as I have suggested above, fits well with a principle of respect for all of creation based upon individual identity, differences and symbiotic relationships.

An expanded principle of justice regardless of whether it is understood in terms of harmony or due, however, when it takes into account ecological concepts, has wide

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[63] Deane-Drummond, *The Ethics of Nature*, 36-38.
[64] Ibid., 15. For an idea of the manner in which such a conception of justice might be applied to moral issues in modern medicine see: P. Gardner, "A Virtue Ethics Approach to Moral Dilemmas in Medicine," *Journal of Medical Ethics* 29, no. 5 (2003): 297-302, at 01.

implications for a new understanding of bioethics. To begin, it widens the questions of bioethics. To whom and/or what does justice apply? Currently those reflecting on justice in health care tend to limit their considerations to problems of inequality in the provision of treatment for individuals, and even that within a local context. If, however, notions of balance or due are applied more globally, then bioethics is challenged to think outside the box. What, for example, are the implications of considering Earth's survival and flourishing as the moral priority? If the principle is also taken to mean that all humans, for their health and flourishing, have a claim to Earth's commons and resources, then bioethics is challenged to begin to address environmental issues such as land destruction, pollution or privatization of water and fair and adequate access to them. Discussion of such issues will have to be integrated with the current medical and scientific issues that are the substance of bioethics deliberations now. What of health care itself? What ought to be its goals? Is there, as a matter of justice, a basic but adequate level of health care that is owed to all humans? If so, how are we to ensure that such health care is available to all and what will be the personal cost to privileged individuals and groups?

Questions like these are disturbing to bioethicists. Answers to them may demand that the first and most important function of the bioethicist is to ask unpopular and highly discomforting questions of themselves and others. These questions may be especially challenging to those who live in places of health and healthcare privilege at the present time. Do we have obligations to give up some of our clear medical benefits so as to ensure better health and healthcare for all while maintaining a level of 'enoughness'? What might be considered enough? This may involve bioethicists, with others, in initiating the public participatory approaches to which I have earlier referred in my discussion on autonomy. It may involve them in proactively supporting a culture of

modesty and an ethos of simplicity, and attempting to witness to it themselves.[65] It may challenge bioethics associations and organizations to undertake what they have long resisted, "to speak on matters of justice as they pertain to social policy that affects health care".[66]

In order to ask the wide questions and engage more globally in ways that an ecologically-informed bioethics demands, bioethicists may have to criticize the institutions that employ them. Most bioethicists at the present time work in large, well equipped, state-of-the-art medical facilities. They are, as I have described in detail in Chapter 1, absorbed in ethical issues pertaining to high-tech and exploratory medicine. They address clinical problems that arise in the context of individual patient care and issues associated with scientific research and its potential applications. I am not suggesting here that such occupations are unimportant, but I am arguing that more than this is needed. Sometimes, bioethicists have simply functioned in their roles to rubber-stamp and to provide spurious moral approval to the activities of modern healthcare.[67] An ecological bioethics, I believe, calls for a much wider scope of content and activities.

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[65] As I have earlier pointed out this witnessing to such a lifestyle was a hallmark of Van Rensselaer Potter's life and work.

[66] Loewy and Loewy, "Use and Abuse of Bioethics: Integrity and Professional Standing," 82-83. The authors here point out that to date, while some individual bioethicists have been a part of policy committees, bioethics organizations and associations have avoided engagement in social policy debate on matters such as poverty, housing and access to healthcare. They have not spoken out to challenge environmentally destructive systems and activities. In part this has been due to concerns that their members hold a plurality of ethical viewpoints. The authors maintain, however, that this need not be an obstacle except when dealing with particularly morally-loaded personal issues such as abortion and euthanasia. Taking a "broad stand" on matters of health and wellbeing in society is, they argue, a very different matter. "Not taking a stand against some given state of affairs", they say, "means "either that this state of affairs is not important enough to bother about or that it is tacitly endorsed." Loewy and Loewy bring home their point forcibly when referring to their own country, the United States. They claim: "How a professional organization engaged in healthcare ethics can ignore a state of affairs which denies basic health care to nearly 20% of people (and makes it difficult for the remainder to get good care) and even worse, tacitly endorses it by refusing to engage in critical discussion about it or the social conditions which breed it remains a mystery to us."

[67] In noting this I acknowledge that as a bioethicist working in modern hospitals I have personally practiced in this manner.

Even within the current context of healthcare, some consideration needs to be given to those who are most vulnerable, for example, those suffering chronic disabilities, mental ill-health or the elderly who simply need care and support; in other words, those who fall within what I have long labeled "the forgotten zone of bioethics". For while moral issues relating to the wellbeing and care of such vulnerable persons do not fit well into the current conceptual 'scientized' paradigm of the discipline, they are vital moral issues all the same.[68] An ecological model of bioethics and a related principle of justice challenges bioethicists to respond to, and engage proactively with respect to the concerns of most vulnerable peoples. Beyond the hospital walls it calls for such response and engagement within local communities and on a global basis for environmental, social and public health.

Finally, on a principle of justice, Pierce and Jameton ask: "Are sustainability and justice necessarily related?" They allude to the fact that if one omits concern for the welfare of future generations the two concepts need not be conjoined. A just world in the terms I have discussed above may be possible. At least, that is, "until Earth's ecosystems collapse". They conclude, if, however, one believes that justice includes the needs and interests of future generations then a just world must also be a sustainable world. "To state the relationship the other way around, if the world is unsustainable then it is also unfair, at least to future generations and to nature's great ecosystem."[69]

As this discussion of principles, I believe, shows the impact of incorporating ecological considerations into current conceptions of bioethics is substantial. Models of ecology that emphasize human/non-human relationships and modesty of consumption

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[68] See for example: Pellegrino and Thomasma, *Helping and Healing: Religious Commitment in Health Care.*

[69] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 122.

provide at least a part-way forward to a new and more relevant bioethics. The shape and functions of such a model of bioethics can be partially supported, I suggest, through the ecological concepts I have discussed above and through many central theological insights. This yields the possibility of setting up collaborative efforts - "a matrix for productive dialogue between secular science and organized religion"- toward a more relevant bioethics.[70] Theology may indeed support or complement a revised bioethical theory.

The long theological tradition that I have described in Chapter 3, and its recent articulations, for example, are quite consistent with new ecological concepts that value all of creation, acknowledge human/nature interconnection, and thus call for an integrated consideration of survival, health and flourishing. Both incorporate notions of human obligation and care vis-à-vis the rest of creation. Both accept the value of principles while not accepting them as the 'be all and end all' of the moral life. Theological notions of the common good challenge the principle of autonomy as it is currently applied in bioethics, and they challenge the stark individualism that grounds it, so also, do ecological constructs of 'community'. The expansion of an understanding of beneficence called for by ecology's concern for all creatures is echoed in similar theological sentiments and it finds expression in the Christian call to kindness, respect, generosity, commitment and care toward others. In fact the Gospel tradition and its theological and spiritual articulations have much to contribute in this regard. As Daniel Callahan has remarked:

> "It is no accident, I suspect that only religious believers are willing to take beneficence seriously, and usually because they are part of traditions that make that both possible and desirable".[71]

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[70] Potter, "Science, Religion Must Share Quest for Global Survival," 12.
[71] Callahan, "Principlism and Communitarianism," 288.

A more comprehensive understanding of justice, to which ecological concepts of interrelationship, balance, and obligation give rise, also finds expression in the theological tradition. A richer theory of justice is, for example, a marked characteristic of feminist, liberation and 'third-world' theologies. Moreover, fuller renditions of both beneficence and justice permeate the Gospels, perhaps most notably in the great 'blessings' of the Beatitudes (Matt. 5:1-12). In particular, a concern for the vulnerable that an ecological model of ethics generates in its conjoining of the "cry of the earth and the cry of the poor", is deeply reflected in feminist and liberation theologies. It finds a response in the recent ecclesial call, derived from liberation theology, for the "preferential option for the poor". The acceptance of the reality of disease and death that an ecological model of bioethics embraces is mirrored in the incarnation, life, healing ministry, death and resurrection of Jesus. Ecology's ethos of modesty and simplicity for the sake of the Earth and others that is central to an ecological understanding of bioethics, finds parallels in Christian concepts of charity, right sacrifice, the evangelical counsel of poverty (or simplicity of life) and in recent calls by the Churches for an ascetic response, or what Sallie McFague has called "cruciform living".[72] The concepts of healthcare that an ecological model of bioethics envisions bear many similarities to original Christian conceptions of care for the sick. These are conceptions rooted first in concerns to relieve suffering and to compassionately care for the sick and dying, with therapeutic intervention only a part of the wider story.[73] Finally, the emphasis of an ecological model of bioethics that locates considerations of individual and human issues within the larger picture is an admirable reflection of classical theological accounts of

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[72] McFague, *Life Abundant: Rethinking Theology and Economy for a Planet in Peril*, 14.

[73] Ferngren, "Medicine and Compassion in Early Christianity," 318. The current CHAC *Health Ethics Guide* states, for example: "Healing is more than simply curing a disease. Healing takes into account the wholeness of the person, recognizing the interrelationship of body, mind and spirit." Catholic Health Association of Canada, *Health Ethics Guide*, 20. Theologian Stanley Hauerwas writes movingly of such understandings of care in: Hauerwas, *Suffering Presence: Theological Reflections on Medicine, the Mentally Handicapped, and the Church.*

humanity in community, and of the macrophase concept of ethics proposed by those, who like Thomas Berry stand on the radical margins of theology today. These examples alone suggest the possibility of theology's full re-engagement in the evolution of bioethics as one valuable voice in the mutually enhancing and transforming discussion needed for that process.

Although I believe a richer articulation of bioethics principles can be helpful for the shaping of a new bioethics such a model, nevertheless, remains limited. Those who have proposed a model of bioethics along ecological lines, for example, have thus far generally failed to address the problems of conflict or of competing interests implied by the model. How are the interests of the near neighbor to be compared with the interests of others in the wider human community? How is a conflict between human interests and the flourishing or survival of the rest of the natural world to be resolved? These are extremely difficult questions that need to be tackled if an ecological model of bioethics is to be developed. I have no easy answers to them but I will suggest a possible approach.

Issues of Conflict or Competing Interests

I have already suggested in Chapter 1 that current bioethical principles when applied to situations in clinical care often come into conflict. In an ecological model of bioethics potential conflict also exists. Potential conflict exists between the interests of one group of individuals and the interests of others in the wider human community. Conflict also exists between human interest and the survival or wellbeing of the rest of the natural world. Our present individualistic and medical models of bioethics and our anthropocentric constructs of morality more generally, have until now, largely allowed us to close our eyes to such problems and to feel justified in doing so. Present environmental and social circumstances, however, challenge such moral comfort. How

we are to meet the challenge is nonetheless, difficult. My suggestion is that one way of beginning to approach the difficulty is to first consider the notion of boundaries that the natural world teaches us.

In an interesting, and I believe in the field of ethics, unique article, theologian Cynthia Crysdale provides two helpful examples of such natural boundaries.[74] The first example she gives is of the pacific salmon. Salmon are anadromous fish that cross boundaries. That is, they travel from the ocean to spawn in freshwater. They challenge the boundaries that define ecosystems within geographic or biotic regions. In doing so, salmon do no harm to the ocean and they are extremely beneficial to freshwater and to its surrounding habitat. Spawning and the decay of salmon in freshwater lakes and streams add nitrogen, phosphorous, carbon and other rich inorganic elements to the habitat. Salmon fertilize freshwater life and their decaying carcasses provide food for many other species. Salmon migrations also attract large numbers of necessary predators to freshwater streams and lakes, maintaining the balance, life and wellbeing of the natural region.

In contrast, Crysdale's second example is that of the purple loosestrife, a perennial and invasive plant that grows in wetlands. Purple loosestrife is not indigenous to North America to which it was brought from Europe at the beginning of the nineteenth century for use as an herbal remedy. When its seeds were flushed out with ships' ballast along the East Coast of America it began to grow along the shoreline. Without natural predators or diseases to inhibit its growth, the purple loosestrife rapidly established itself, moving inland as canals and waterways were constructed for human habitation. Though

[74] Cynthia Crysdale, "Crossing Boundaries: Virtue or Vice for the Twenty-First Century," *Cross Currents* 52, no. 3 (2002): 385-99.

very beautiful, the purple loosestrife is an invasive species in North America. It has eliminated its competitors but has not provided any sustenance or habitat for the flourishing of other species. It has taken over the resources available to other species and given nothing in return. Given its proliferation it is impossible to effectively and economically root it out manually or mechanically. Instead, and ironically, the way in which it is now being controlled for the wellbeing of the surrounding habitat is through the introduction of boundary-crossing European insects that naturally control or kill the purple loosestrife without harm to native species. Importantly, Crysdale points out, what makes the loosestrife invasive is not simply that it has crossed boundaries but that it has become isolated from a natural system intended to contain it. The introduction of the insects, natural parasites, will remove the dominant status that the purple loosestrife has gained and will render it an asset rather than a danger to North American ecosystems. Crysdale's point in providing these two examples is to illustrate that some boundary crossings create community and freedom and other such infringements violate the same.[75] What is necessary is to attempt to distinguish between them.

Crysdale's reflections on natural boundaries provide helpful points for reflection on ethics generally (as she intended in her article) and also, I believe, on the questions of conflict posed in this section more particularly. Clearly, her examples provide no direct rules for action or definitive answers but I suggest they give us pause for thought regarding dominance, freedom, restraint or precaution. Crossing of some boundaries results in loss of life and ultimately of the life of the initial destroyer. The dominance of one group or species cannot be permitted to destroy or withhold what is necessary for the flourishing of others. Of course it still remains critical to determine what is required for the life and flourishing of others but at very least the analogy offered by Crysdale

[75] Ibid.: 386 88.

encourages the asking of that question; a question that present bioethics does not pose. The identification of the needs of others may require some restraint or limit to the dominant group – some gift of itself. The potential relevance of this for the health and wellbeing of more vulnerable people, for global health and for the flourishing of the natural world is significant. The perspective that Crysdale offers does not, however, by analogy, logically lead to a notion of radical equality but as the earlier reflections on the principles of respect and justice have indicated, it does demand that all be provided their due even at the expense of a currently more materially or scientifically privileged group. That is, when interests of one group conflict with those of a dominant group, some sacrifices on the part of the dominant group may be morally indicated. Furthermore, Crysdale's reflections on boundaries do not imply that they should never be crossed. Indeed in her use of the example of salmon she indicates that such crossing of boundaries may well be, in some circumstances, mutually beneficial. In the world of modern genetic science for example, studies concerning the genetic modification of non-human species (given appropriate precautions) and those which facilitate the diagnosis and potential treatment of genetic disorders in humans may well be beneficial for all life. Indeed, such examples strengthen arguments for a more inclusive, ecological model of bioethics.[76]

It may also be argued that boundaries may sometimes be crossed when one group benefits at the relative expense of another. The issue of research with animals for the benefit of humans is a case in point. While it is certainly a contentious issue, seen in terms of conflict of interests between species, many would argue that some boundaries may be crossed but not others. Thus, humans might use animals for research purposes only if no other appropriate means exist but the boundaries that prohibit the infliction of

[76] Dutney, "Bioethics, Ecology, and Theology," 227.

unnecessary suffering and pain on the animals to be used and certainly those boundaries that ensure the continuing survival and flourishing of the particular species must be left intact.[77] This provision is generally compatible with the maxim articulated by Aldo Leopold and later Van Rensellaer Potter that "a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong if it tends otherwise."[78]

Finally on the point of conflict, it has been argued that some boundaries may not be crossed. The example of germ line experimentation is illustrative. Such research may be considered beneficial for humanity, even for particular groups of humans. The intentions of researchers may be laudable, their motives guided by deep compassion, and the needs of certain people, urgent. Nonetheless, problems associated with such research may be totally unpredictable and the potential for devastating effects on human survival, or even for the balance of life itself so great, that boundaries may not be crossed, however well intentioned.

The concept of boundaries as evidenced in the natural world may therefore provide helpful guidelines for moral action when conflicts of interest exist within an ecological model of bioethics. They do not provide answers anymore than do principles in current bioethics but I believe that they equip us with insights necessary for practice. If this is the case, however, more than principles, even the expanded principles which I have described above are required for a renewed theory of bioethics. Complex moral discernment is required to seek the good. For this I suggest the development of a virtue ethics approach for a renewed theory of bioethics.

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[77] Lebacqz, "On the Elusive Nature of Respect," 153.
[78] Leopold, *A Sand County Almanac and Sketches Here and There*, 224. See also: Potter, *Global Bioethics: Building on the Leopold Legacy*, 17.

Virtue Ethics: Possible Contributions to a Revised Theory of Bioethics

For a bioethics that integrates concern for the natural world and for humans who have a specific identity as a part of that natural world, it is necessary to include not just prescriptions for our interaction with one another and treatment of the rest of nature, but also to reflect upon "who we are, our human nature".[79] Virtue ethics, which has been generally neglected in the field of bioethics to date, has much to contribute to the ways in which we might reflect on human nature, human interests and on relating to the natural world in an appropriate and responsible manner.

Focusing on episodic decision-making in the dilemmas of action in our complex world is a characteristic of modern bioethics but virtue ethics stresses first the character of the moral agent. It embraces a fundamental question, "how should one live"? Specifically, virtue ethics entails a "commitment to live one's life in a particular way, commitment which has consequences in specific actions".[80] Celia Deane-Drummond expresses its focus in the following way:

> It [virtue ethics] focuses on what sort of person we are, rather than what sorts of action we should perform. Actions, where they are considered, are in the light of who we are as persons, rather than detached from human character.[81]

Virtue ethics, therefore, encompasses more than rational choice. It involves the combination of reason, emotion, intuition, and empathy for the other that is a part of what it is to be human and which is required to live consistently within the context of one's moral commitments.[82] The notion of goodness is the fundamental consideration in virtue ethics rather than rights, duties or obligations. The good person who lives a good life

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[79] Deane-Drummond, *The Ethics of Nature*, ix.
[80] Campbell, "The Virtues (and Vices) of the Four Principles," 292.
[81] Deane-Drummond, *The Ethics of Nature*, 6.
[82] Campbell, "The Virtues (and Vices) of the Four Principles," 292.

must develop virtues, which through habitual use become part of that person's character.[83] Thus, James Rachels defines a virtue as "a trait of character, manifested in habitual action that is good for a person to have".[84] Virtues are not wholly innate. They are acquired as a person matures in age and experience. They are a product of numerous and diverse influences in life, including upbringing, peer interaction, education, cultural factors and the example of good character in others whom we admire and seek to emulate.[85] Religion has traditionally been seen as a significant contributor to character development but as societies, especially those in the West become more secularized and pluralistic, it becomes increasingly difficult to identify any particular image of "the good life".[86]

Virtue ethics, however, is about more than character traits or virtues; it is concerned with the notion of flourishing or living well. For Aristotle, whose thought grounds virtue ethics, flourishing, is about achieving a state of *eudaimonia*.[87] Although difficult to translate today, *eudaimonia*, speaks of deep rooted happiness in the whole dynamic of life. Most interpreters of Aristotle understand the concept of *eudaimonia* to be realized in human functioning in accordance with its proper excellence, that is, in the fullness of the essence of humanity. *Eudaimonia* "essentially involves not just the activity of the theoretical intellect but the full range of human life and action, in accordance with

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[83] Gardner, "A Virtue Ethics Approach to Moral Dilemmas in Medicine," 297.
[84] James Rachels, *The Elements of Moral Philosophy* (London: McGraw-Hill International, 1999), 178.
[85] At the present time, I believe it likely that many would claim that some character traits that might be called virtues are innate, that is, that there is a genetic component to them. In the absence of genetic reductionism, however, I suggest that the factors considered above as influential in the development of character, would still be accepted as valid even if they are considered to be only a part of the full story. Discussion about the type of relationship that exists between genetic influences and human character formation has found impetus in the renewed nature/nurture debate generated by the increasing 'geneticization' in our time.
[86] Campbell, "The Virtues (and Vices) of the Four Principles," 292.
[87] In particular, Aristotle discusses his concept of "*eudaimonia*" in his *Nicomachean Ethics* and the *Eudemian Ethics*

the broader excellences of moral virtue and practical wisdom".[88] Thus, a human flourishes and leads a good life when he or she fulfils the function of human beings.[89] Phillipa Foot puts this into contemporary terms:

> Men and women need to be industrious and tenacious of purpose not only so as to be able to house, clothe and feed themselves, but also to pursue human ends having to do with love and friendship. They need the ability to form family ties, friendships and special relations with neighbors. They also need codes of conduct. And how could they have all these things without virtues such as loyalty, fairness, kindness and in certain circumstances obedience?[90]

Virtue ethics, therefore, embodies particular conceptions of human identity and expresses a profound sense of the interpersonal and social nature of human existence. As Alastair Campbell points out, "from Aristotle onwards, the virtues are set within an account of human nature". Thomas Aquinas' influential concept of human flourishing provides a unified account of humanity in community, and I argue that it is precisely in such accounts of humanity in community, that various expressions of virtue ethics, theological and secular, provide insights for a bioethics that engages both human and environmental concerns.

In her latest book, Celia Deane-Drummond argues cogently that "for an ethics of nature", a case can be made "for a reappropriation of virtue ethics drawing particularly on the insights of Thomas Aquinas". She believes such an approach, "offers a philosophical theology that engages with contemporary discourse on virtue ethics, but also expresses such terms in language that can be appropriated within the Christian

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[88] Thomas Nagel, "Aristotle on Eudaimonia," in *Essays on Aristotle's Ethics*, ed. Amelie Oksenberg Rorty (Berkeley: University of California Press, 1980), 7-14, at 7.
[89] Gardner, "A Virtue Ethics Approach to Moral Dilemmas in Medicine," 298.
[90] Philippa Foot, *Natural Goodness* (Oxford: Oxford University Press, 2001). Cited in: Gardner, "A Virtue Ethics Approach to Moral Dilemmas in Medicine," 298. It is interesting to note here that Philippa Foot, appears to acknowledge a derivative relationship between virtue and deontic ethics.

tradition".[91] Deane-Drummond goes on to develop the view that the four cardinal virtues of prudence, justice, fortitude and temperance developed by Thomas Aquinas provide a basis for reflection on the ethics of nature. She argues that prudence, the virtue so central to Aquinas' own method of dialectical questioning is, in particular, vibrant with possibility for a contemporary moral understanding of the interface of human/environmental concerns.[92] I find Dean-Drummond's arguments particularly persuasive.

Prudence, or practical wisdom, is aligned with goodness. Without it the virtues of justice and fortitude are not possible. Instinctive human inclination toward goodness, rooted in natural law, is transformed through prudence. Prudence is concerned with choices relating to practical matters of human reasoning and "the free activity of humanity is good in so far as it corresponds to the pattern of prudence". Therefore, prudence both underpins and permeates all moral virtues. It perfects them to their true nature and it is through their participation in prudence that they are rightly virtues. The

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[91] Deane-Drummond, *The Ethics of Nature*, 1-2.

[92] Ibid., 9. Deane-Drummond (page xii), holds that the search for wisdom that is a central feature of Aquinas' thinking when applied to the problems encountered by environmental issues allows us to bypass what she calls the "somewhat stale philosophical debate between anthropocentric and biocentric views". Her arguments do indeed allow a bypass, since the central question within her framework for an environmental ethic becomes "what does it mean to act prudently and with justice in the context of environmental issues?" I agree with Deane-Drummond that the anthropocentric-biocentric debate may well be stale philosophically and its arguments, essentially irresolvable. I suggest, nonetheless, that outside of philosophical circles the debate is far from "stale". On the contrary, it has hardly been aired. In particular, I believe this to be the case in many of our churches, educational establishments, professional schools, and generally in our media. I therefore believe that in such public circles the debate, like principles in bioethics, can be effective in the consciousness-raising and for the questioning that are fundamental to the embrace of a human-environmental ethic, in immediate ways that a more philosophical/theological argument from virtue may not be. I do agree with Deane-Drummond, however, that crucial questions must be, "What is nature?"; "What is it to be human and that in the context of the rest of the natural world? And; "What are the moral consequences of the answers to the prior questions?" Until one becomes aware of the entrenched and extreme anthropocentric thinking that prevails, however, I am not convinced that such questions can be asked. If the anthropocentric-biocentric debate, however philosophically superficial or inadequate it may be, can help create the necessary awareness and conditions for the asking the critical questions then I believe it continues to have an important place in society at this time.

reason which is a part of prudence is not that narrow construct of reason that has come to permeate contemporary concepts of ethical deliberation. It is, rather, "a regard for and openness to reality". Reality is inclusive of both supernatural and natural reality and the realization of goodness entails knowledge of reality. Good intentions alone are inadequate. Prudent decisions have both universal and particular content. Universal principles are "naturally apprehended principles of ethical conduct, or innate conscience". Prudence has several functional features – deliberation and judgment are the characteristics of its cognitive stage while decision, volition and action indicate its very practical nature. Prudence, given this range of features is, according to Aquinas, "wisdom in human affairs".[93] It involves taking counsel, making correct judgment, and then moving on to act in a particular way. Prudence does not define the good but it "*facilitates what makes for right choices* by its action in other virtues that accord with the "ultimate orientation for the good"[94]

Having identified these characteristics of prudence Deane-Drummond considers the value of its holistic tasks for an understanding of an ethics that integrates environmental and human interests. She demonstrates the flexibility of prudence in the light of particular ethical circumstances. The ability of prudence to "be still and to deliberate well" and to take counsel, Deane-Drummond maintains is, "a quality desperately needed in the frenzied search for new methods and techniques in biological science that are considered to have particular usefulness for humanity." Nonetheless, with its practical emphasis on reality, prudence "demands a full encounter with experience, including the experience of science, taking time to perceive what is real in the natural world". This attention to the natural world involves a "listening to the Other in

[93] Ibid., 10.
[94] Ibid.

nature, without trying to force the natural world to conform to human categories". Interestingly, Deane-Drummond observes that while Aquinas limited his idea of taking counsel to other humans, "in the present environmental context it is essential to try as far as possible to perceive from the perspective of all creatures, all of whom are loved by God and under God's providence". Furthermore, prudence is concerned not only with reflection but also with positive action oriented to the good. Thus while it shares with consequentialist approaches some analysis of risk and benefit, it goes beyond this to consider always how decisions promote the "overall goal of prudence toward goodness". The character of the moral agent is as important as particular consequences of decisions made. In this way the virtue of prudence requires that the good of humanity is considered along with the goods of other creatures and of the biosphere itself.[95]

Throughout her book, Deane-Drummond thoughtfully applies this general thinking on prudence and environmental ethics to numerous areas of concern, including uses and abuses of bioetechnology, animal ethics and cloning. She examines and applies the other cardinal virtues in similar ways. Justice understood variously by Aquinas to mean a habit of the will whereby a person is rendered his or her due, a certain balance or equality in which each is to be given according to need, or a concept entailing positive rights according to human law is applied by Deane-Drummond in several ways. She notes that Aquinas' conception of due can be understood to affirm the entitlement of every living being to enjoy the fullness of its own life. Within an ecological context she extends Aquinas' principle of equality to take account of the fact that "all life forms are mutually interdependent on each other and on non-life forms". This entails responsibility toward the other and for the wellbeing of all. Aquinas' notion of positive rights in law is extended to "justice *for* non-human life from the perspective of a human

[95] Ibid., 14-15.

community in *kinship with* the non-human community rather than justice between non-humans by analogy with the human condition".[96] Deane-Drummond then defines the virtue of fortitude as the:

> ability to stand firm in the face of difficult circumstances, to be willing to suffer for the good with a clear-sighted knowledge of what that good might be. Fortitude is necessary in order to preserve the good that is perceived by prudence and established by justice.[97]

When the goal of goodness becomes inclusive of all creatures, Deane-Drummond says, the willingness to suffer for the sake of justice takes on new meaning. It does so particularly when we consider the steps that may be necessary to ensure the restoration of justice for the whole community of creation. Fortitude is conjoined with the virtue of temperance which implies some sense of selflessness and restraint. Deane-Drummond indicates that today in our consumerist society this has relevance in consideration of an ethos of need over an ethos of want and of waste. In the context of health care and bioethics this raises important questions about "enoughness" so that others might have life and health and for the sake of the biosphere.

In this way, Deane-Drummond develops an ethic of environmental concern. It is an ethic that is based on a deep understanding of what it is to be human, framed in Christian theological terms. In her far-reaching application of virtue ethics, Deane-Drummond, it seems to me, provides *one* promising approach to ethical discernment and action for today. It is an approach that has clear implications for the manner in which we understand and do bioethics – bioethics that embraces all life.

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[96] Ibid., 46-47.
[97] Ibid., 17.

I suggest that a virtue ethics approach, and specifically Deane-Drummond's interpretation of Aquinas' virtue theory, may be helpful for the formulation of an ecological bioethics for several key reasons. Firstly, given that "the premise of a virtue ethic is that goodness is a fundamental consideration, rather than rights, duties or obligations"[98], it seems to me that such an approach offers *one* plausible way to address problems of fragmentation present in current models of bioethics. In this regard, I believe that a virtue ethic provides a wider "sense of narrative, of being part of a community in which moral concern is shaped and developed".[99] Such narrative, as I have suggested earlier, is considered foundational for the development of an ecological bioethics, especially with respect to the enhancement of public discourse, goal setting and policy formation.[100] Secondly, Deane-Drummond identifies "the goodness" fundamental to virtue ethics with "developing a life that is centered on *flourishing* or living well".[101] This, according to Deane-Drummond, calls us to respect and to care for all creation and it elicits reflection on the right relationship of humans to the rest of creation. Therefore, as I see it, Deane-Drummond's interpretations may helpfully contribute to a model of bioethics that also calls for respect and care for all creation and the living out of right relationship with the Earth. In particular, her work may help inform discussions concerning the marked anthropocentrism that is troubling in present models of

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[98] Ibid., 6. Problems of fragmentation, as I have discussed in detail in chapter 1, include a loss of context in current ethics, the limits of principle and the narrowness of present quandary ethics.
[99] Ibid., 1.
[100] The restoration of "a sense of narrative" is considered vital by those who write of an ecological dimension in ethics. It seems to me, for example, that a plea for such a foundational narrative is found in the respective calls of Thomas Berry for a "new story" and of Jürgen Moltmann for a "new model of understanding relationship" discussed in chapter 4 of this thesis. See in particular, pages 200-218 and 228-232.
[101] Deane-Drummond, *The Ethics of Nature*, 6. Here as I have discussed above, Deane-Drummond's understanding of "flourishing" is rooted in Aquinas' theology of the world as created; that is, all creation and its diverse manifestations are gift and image of God. See: Deane-Drummond, *The Ethics of Nature*, 19-22.

ethics/bioethics.[102]

I also find Deane-Drummond's discussion of the particular virtues identified in Aquinas' work persuasive for the development of an ecological bioethics. Her belief, for example, that the orientation of prudence is practical as well as theoretical parallels the perceived need in an ecological ethics for an integration of theory and practice in the light of present global circumstances.[103] Furthermore, prudence, according to Deane-Drummond, creates the capacity to view matters in an holistic manner.[104] This capacity, as discussed, is similarly considered essential for the development of an ecological bioethics that is comprehensive and integrated in content and process.[105] The measured discernment process that Deane-Drummond identifies with the exercise of prudence, I believe, finds a parallel in an ecological model of bioethics that seeks to weigh urgent imperatives for scientific and medical advancement against their potential and possibly harmful impact on wider environmental, social and future contexts.[106] For, as I have indicated, an ecological bioethics is fundamentally concerned with essential relationships between the environmental, social and medical and with the future survival and wellbeing of all life. Furthermore, Deane-Drummond's reflections on the virtues of justice, temperance and fortitude, outlined above, parallel and support calls for a

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[102] It will be recalled from my earlier text that concerns regarding the anthropocentric focus of present ethical theory and practice are central to the writings of those theologians and ethicists who call for the development of an ecological ethics. The debate is especially present in the works of Van Rensellaer Potter and Thomas Berry. See for example: Potter and Potter, "Global Bioethics: Converting Sustainable Development to Global Survival," 188. See also: Berry, *Ethics and Ecology* ([cited).

[103] Deane-Drummond states that while prudence is a reasoning activity concerned with deliberation and judgment, it also includes the "*practical execution* of what has been decided upon". She sees this interpretation as consistent with the thought of Aquinas. See: Deane-Drummond, *The Ethics of Nature*, 11.

[104] Deane-Drummond understands prudence, as expounded by Aquinas, to encompass the taking into account all available knowledge and experience. The comprehensiveness of Aquinas' thought she takes as a given. See: Ibid., 10.

[105] See for example: Potter, *Bioethics: Bridge to the Future*, vii-viii.

[106] See: Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address."

bioethics that requires some human restraint for the sake the other.[107]

The Social Teaching of the Church as a Basis for the Development of Bioethics

An alternative proposal for a foundation for a wider concept of bioethics has been made by Lisa Sowle Cahill. Cahill suggests that in the light of present global circumstances, the social teaching of the Church and specifically its implied concept of the common good provides a helpful basis for the development of a more integrated and global bioethics.[108] Referring to Catholic bioethics, in particular, Cahill states that:

> Globalization is bringing Catholic bioethics ever more firmly under the aegis of Catholic social teaching and common good without, however, losing its characteristic emphasis on the dignity and inviolability of the individual person.[109]

I find Cahill's proposal illuminating for the possible development of bioethics. Although it is not possible here to provide a detailed account of Cahill's thesis, her central points are as follows: The Catholic concept of the common good has always linked person and society together "by insisting that the intrinsic sociality of persons demands their

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[107] Here, "the other" is taken to mean other humans and the environment. The call for an ethics/ bioethics that calls for some human restraint in this way was discussed earlier citing the Social Affairs Commission of the Canadian Conference of Catholic Bishops on an "ascetic response" to global problems (page 188) and theologian Sallie McFague on "cruciform living" (pages 187-188). Lastly, any concern that the virtues identified in a specific theological theory are necessarily culturally-fixed need not, I believe, exclude the possibility of the usefulness of such a theory for the formulation of a wider bioethics. For, I suggest, that it is quite possible to identify other religious or secular correlates that reflect, match or amplify the virtues. Some of the parallels between Deane-Drummond's assertions and those of secular ethicists identified above I believe illustrate this point.

[108] Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 8-9. As I have indicated at the beginning of this chapter Cahill's notion of a more integrated bioethics requires the expansion of our vision for life and health beyond the confines of health care facilities and medical interventions. It entails the integration of human life with all life, and it requires that individual life and health be viewed within the context of the common good.

[109] Ibid., 8. Although Cahill is focusing primarily on Catholic bioethics in this context, it seems to me that her arguments are not limited to it. Indeed, she stresses "the importance of ecumenical conversation in the development of the Catholic tradition" upon which she is basing her arguments. Thus, her views, I believe, also take into consideration Christian social teaching more broadly and many ideas found in other traditions and in the social sciences. The application of her views, may, therefore, be quite widely accessible and acceptable.

interdependence, communication, solidarity and co-responsibility."[110] Within recent years, Cahill believes, the concept of the common good has come to be "construed as globally comprehensive". The preferential option for the poor has been emphasized as a fundamental Christian and social duty.[111] From this initial summary of Cahill's understanding of Catholic social teaching, I believe, it is already possible to see a potential argument for the broadening of bioethics. For, according to Cahill the emphases of the social teaching, highlighted above, necessarily transform "medical bioethics". At very least, they make of bioethics "a variety of social ethics" concerned with local and global patterns of access to health care and with meeting basic human needs for all.[112]

In making her argument, Cahill traces the development of social teaching, and correspondingly, of social bioethics over the last three decades. Specifically, she focuses on aspects of the works of Protestant theologian James Gustafson and Roman Catholic, Richard McCormick. Cahill maintains that Gustafson's recognition of the plurality of values, the inevitability of conflict between values, and his insistence on the inescapable fact of "ambiguity in moral choice", helped contribute to the realization that moral decisions cannot be made solely on an individual basis or as a matter of principle alone. Rather, such decisions must be made in the light of *relationships* involved in a particular case.[113] Moreover, Gustafson's understanding of relationship here transcends

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[110] Ibid., 9. Like John Paul 11, Cahill's defines solidarity as the exercise of moral and social attitudes that fully recognize interdependence in cultural, religious, economic and political terms. Also, solidarity that is informed by faith has the capacity to challenge and "conquer 'structures of sin'." Cahill, *Bioethics and the Common Good: The Pere Marquette Lecture in Theology 2004*, 60. For a clear summary of the origins and principles of Catholic social teaching see: Sheridan Gilley, "Pope Leo's Legacy," *The Tablet*, December 13, 2003. See also: William Byron, "Ten Building Blocks of Catholic Social Teaching," *America*, October 31, 1998.

[111] Cahill, *Bioethics and the Common Good: The Pere Marquette Lecture in Theology 2004*, 9.

[112] Ibid.

[113] Gustafson, *The Contributions of Theology to Medical Ethics*, 91. Cited in: Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 12.

the human relational dynamic. He proposes that the concept of the "common good" be extended to embrace the well-being of all creation. Thus, Gustafson considers the possibility that moral judgments will be necessary that "override certain human claims for individual rights and values for the sake of the more inclusive well-being of the wider circle of life."[114] Given this perspective, I agree with Cahill that Gustafson's perspective might helpfully be applied to challenge standard bioethics with its primary focus on individual medical cases and on abstract principle, and that his contribution to the evolution of social teaching may well assist the development of a global bioethics. That is, a global bioethics grounded in an understanding of human/human and human/Earth interrelationship, from which flow the questions, discernment processes and practical actions of bioethics.

In her analysis of the works of Richard McCormick, Cahill, in particular, focuses on his articulation of proportionate reason. Based on prior debates concerning the principle of double effect, McCormick maintained that key to the application of the principle is the proportion of good over bad in any moral situation in which a compelling good can be achieved only at the price of causing some "evil". Proportionate reasoning is the process through which the attempt is made to establish the proportion of good over "evil" in such circumstances. [115] To counteract accusations that "proportionate reason is reducible to a simple utilitarian calculus", McCormick states that "the notion of proportionate reason is analogous".[116] By this he means that "the 'good' toward which proportionate reasoning is directed may be understood in three different but similar

[114] Gustafson, *The Contributions of Theology to Medical Ethics*, 32. Cited in: Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 11.
[115] See: McCormick, *Ambiguity in Moral Choice*.
[116] Ibid., 46.

ways".[117] These are: the good of avoiding some greater evil; the good of justice as allowing self-preservation as the agent's priority; and gospel identity as prioritizing love and self-sacrifice for another even at cost to the agent."[118] According to McCormick, all of these provide valid ways to resolve a moral problem and it is this aspect of McCormick's argument that Cahill develops as a basis for the development of bioethics. She states:

> These three determinations of the "greater good" are forms of proportionate reasoning, but the "good" sought can validly be defined in three different ways, allowing for different acceptable outcomes. This proposal turns out to be very useful in understanding and applying the relevance of the notion of common good for bioethics in an era of globalization.[119]

Cahill believes that one important outcome of McCormick's thought is that it "allows moral considerations that were originally applied in the contexts of single agents and their actions to be extended 'analogously' to groups and institutions whose behavior occurs in larger patterns and networks that overlap, intersect and expand over time"[120] Globalization requires that we think of the good in different ways. Thus, Cahill maintains:

> The global common good demands that 'first world' nations avoid the greater evil of self-benefiting institutions that cause harm to others ('structural violence'), even if this means accepting the 'lesser evil' of not maximizing their own opportunities for scientific and economic advancement. The global common good demands that we seek justice for all, but any nation or people is allowed to put its needs first, as long as it does not offend against the legitimate rights of others. The global common good also requires that we recognize the Christian vocation of self-sacrifice and preferential option for the poor as necessary for social transformation going beyond rights and equality.[121]

It is on the basis of these elements of social teaching that Cahill makes her argument for a wider and integrated bioethics.

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[117] Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 18.
[118] Ibid. Here, Cahill is basing her interpretation of McCormick's argument on: McCormick, *Ambiguity in Moral Choice*, 233.
[119] Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 18.
[120] Ibid., 19.
[121] Ibid., 19-20.

The model of bioethics which Cahill believes social teaching helps underpin is one in which the dignity of the person and the common good are correlative concepts, as they are in Catholic social teaching. For, she believes, "the welfare of the individual is contingent upon the interdependent social relations that constitute the common good". Yet the common good is a value in its own right. Thus, health care decisions and scientific or technological development must take account of possible social and economic consequences. The needs and interests of individuals, while important, must be assessed with respect to how they "fit or impinge upon the needs of the larger community, (and community here is understood to include but to go beyond the human community) or of wider individual claims on resources." [122] This vision of bioethics is concerned, not primarily or exclusively with medical issues, or as Cahill remarks, with "market-based health care, and profit driven biotechnological research into exotic cures for first-world diseases".[123] It is first of all concerned with the basic conditions for health for all, including the provision of adequate food and clean water - conditions that are contingent upon environmental, social and political integrity. It is also concerned with the development of preventive medicine, emergency care, treatment of chronic illness and its symptoms, accommodation for disabilities, and appropriate care and support in old age and in the dying process.[124] Bioethics, in the era of globalization, Cahill also claims includes the fair distribution of health care resources. "In that broad picture are poverty, sexism, and racism, that make many vulnerable to disease."[125] The preferential option for the poor, inherent in the social teaching of the Church, is a key feature of such a bioethics. To transform our notions of bioethics in the manner suggested here requires

[122] Ibid., 41-42. The words in parentheses are mine.
[123] Ibid., 64.
[124] Ibid., 45. In chapter 1 of this thesis I have suggested that these approaches receive relatively minimal attention in current bioethics. They are a part of what I have called "the forgotten zone of bioethics".
[125] Ibid., 75.

deep and wide reflection on what constitutes the common good. Such reflection, Cahill believes, is also supported by recourse to social teaching, given its recent "increasing affirmation of the participation of all persons and groups in institutions of decision-making."[126] In turn, the affirmation of such participation has its roots in the "the principle of subsidiarity", another pillar of the Church's social teaching.[127] Cahill views the principle of subsidiarity as a means toward the exercise of "responsible stewardship of health resources" in fulfillment of "an obligation to seek equitable care and to promote the health of all in the community."[128]

Such a model of bioethics appears to be very similar to the ecological bioethics envisioned by Van Rensellear Potter, Daniel Callahan and others that I have earlier described. Indeed, Cahill's interpretation of social teaching and its application may well provide a very helpful theoretical foundation for the development of their approaches. The model of bioethics that Cahill is highlighting here, in turn, I suggest yields a concept of health that is built around the promotion of Earth and human wellbeing, social integrity, the relief of suffering and the care of the sick. It does not exclude the individual, medical, scientific and technological concerns of current standard bioethics but these concerns are to be reflected and acted upon in the context of more fundamental and wider understandings of health and strategies for health promotion and care. Furthermore, such understandings of health and health care, I believe, mirror concepts of health, caring and the relief of suffering found throughout the Christian tradition. As I

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[126] Ibid.

[127] A principle of subsidiarity requires a process of dialogue with people from all levels of society. Thus, the principle places limits on government or on top-down decision making by "insisting that no higher level of organization should perform any function that can be handled efficiently and effectively at a lower level of organization by persons who, individually or in groups, are closer to the problems and closer to the ground." See: Byron, "Ten Building Blocks of Catholic Social Teaching," 11. Cahill sees this principle as helping open the door to greater participation in the determination of "the good" with respect to understandings of health and health care. See: Cahill, *Bioethics and the Common Good: The Père Marquette Lecture in Theology 2004*, 44.

[128] Cahill, *Bioethics and the Common Good: The Pere Marquette Lecture in Theology 2004*, 44.

have previously noted, from the time of the early Church "the care of the sick was directed primarily toward relief of suffering rather than rendering therapeutic treatment".[129] Christian writings continue to echo the emphasis on caring.[130] Biblical scholars speak to the social and political contexts of health, medicine, cure and care found in both the Hebrew and Christian Scriptures.[131] Recent ecclesial initiatives similarly reflect wide and integrated concepts of health and health care. John Paul 11, for example, in his letter for the world Day of the Sick in 2002, refers collectively to "those who are sick, suffering or outcast".[132] In doing so, John Paul is invoking a principle of solidarity central to social teaching. From the examples provided above, I believe, Cahill makes a good case for the application of the Church's social teaching for the development of a wider bioethics, one that in turn, yields wider concepts of health and health care, embodied in calls for a global ecological bioethics.

In my discussions above of bioethical principles, virtue ethics, and social teaching I have attempted to provide a sense of the need for an expanded theory of bioethics and some detail of what such a theory might begin to look like. This in turn requires some reflection on education in bioethics and in the professions generally.

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[129] Ferngren, "Medicine and Compassion in Early Christianity," 318.
[130] See for example: Daniel P. Sulmasy, "Catholic Health Care: Not Dead Yet," *The National Catholic Bioethics Quarterly* 1, no. 1 (2001): 41-49. See also: Leo Thomas and Jan Alkire, "What Is Health?," *The Journal of Christian Healing* 22, no. 3&4 (2001).
[131] Friedrich Dobberahn, for example, makes clear that in both the Hebrew Scriptures and in the New Testament, the sick or suffering person is "a political human being", part of a wide community, and that curing the sick is not simply about perfect bodily functioning. It is also about creating a just and fair society. See: Friedrich Dobberahn, ""You Have Restored My Life from the Depth of the Earth," *Panorama* 12, no. 1 (2000).
[132] Pope John Paul 11, "Message for World Day of the Sick," (2002). Cited in: Moira McQueen, "Solidarity with the Sick," *Bioethics Matters* 4, no. 1 (2006).

Education in Bioethics and Bioethics Education

An integrative bioethics modeled on ecological concepts calls for a more comprehensive approach to education. Van Rensselaer Potter, in his foundational work in bioethics and in scientific and medical education was clear on this point. He refused to "isolate issues and responsibilities into separate atomistic fields of inquiry."[133] Potter's "bioethic" and his teaching in the field was always "intellectually comprehensive" incorporating a wide spectrum of professional knowledge and human wisdom into discussions.[134] Potter consistently maintained that education in and approach to the issues of bioethics "must be interdisciplinary and multidisciplinary from the outset."[135] Indeed, his whole understanding of bioethics as an "ethic of humility with responsibility" was expressed in a call to "listen; place yourself in the intellectual framework of others as you diligently try to present your own product."[136] Potter's sentiment has been echoed recently in the work of Daniel Callahan who claims that bioethics:

> ought to be, an interdisciplinary field, drawing upon many disciplines for its intellectual resources. No one discipline, whatever its foundations, can claim a privileged place.[137]

It is promising to note that gradually there is a move toward such an approach. Some major universities, for example, have recently developed new centers of ethics in which a variety of disciplines, including anthropology, biology, environmental science, geography, medicine, philosophy, politics, psychology and sociology teach and research together in an integrated manner.[138] Nonetheless, this tends to be the exception rather

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[133] Reich, "The Word "Bioethics": The Struggle over Its Earliest Meanings," 26.
[134] Whitehouse, "Van Rensselaer Potter: An Intellectual Memoir," 332.
[135] Potter, "Bioethics," 1088.
[136] Potter, "Humility with Responsibility - a Bioethic for Oncologists: Presidential Address," 2304.
[137] Callahan, "Individual Good and Common Good: A Communitarian Approach to Bioethics," 498.
[138] For example, Harvard University has such an integrated center and the University of Toronto has just established a center in which those teaching and researching in the fields of philosophy, business studies, international studies, religion, theology, environmental science, medicine and

than the rule. There is much yet to be done in developing approaches to education in bioethics and to bioethics education for the professions. Education in bioethics itself leaves much to be desired at the present time. While students are taught some broad philosophical theory, in my experience, it is commonly limited to an outline of deontology, framed by *prima facie* principles, and utilitarianism. Even these theories may be presented in a fragmented manner. In more recent times compartmentalized sessions on narrative ethics or on secular conceptions of virtue may be added. Religious perspectives or theological ethics rarely enter the arena. Indeed, there has been, except in colleges with religious or denominational origins, a concerted effort to exclude theological content. This, despite the fact that in healthcare practice, many of the problems patients and their families encounter, and for which bioethics services are requested, are rooted in personal religious convictions.

Specific topics are taught such as the ethics of stem cell research, consent and capacity, genetics and ethics, neonatal ethics and the ethics of palliative care. There is little, if any, discussion of the relationships between such topics and virtually no analysis of the ethics of relationship between these topics and the broader issues of social, political or environmental ethics. In contrast, an ecological model of bioethics, while not neglecting the above topics, and those like them, that are the current concerns of the discipline calls for consideration of the important interaction of medical care and patient need with the physical, economic, social and political environment.[139] In turn such an approach demands the sort of interdisciplinary education programs in bioethics and for

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medical bioethics will come together in the development of a variety of teaching initiatives and other projects.

[139] John Howard, "Ecosystem Health: Prescribing a New Vision for the Future of Medicine," *Alternatives Journal* 31, no. 5 (2005): 10-13.

ethics in the professions envisaged by Van Rensselaer Potter. Consideration has yet to be given to more integrative approaches to curriculum design. Possibilities for interdisciplinary foundation courses in ethics for numerous professions, whose academic content and processes relate, require further development. Co-teaching practices offer some promise. This does occasionally occur between medicine and bioethics where physicians and ethicists teach classes or hold seminars together to integrate content but broader integration is rare except in some medical humanities classes. If the relationships between health, environment and social conditions are to be taken seriously as I have suggested in this thesis then courses or even classes must be more integrated. Teaching faculty must be drawn from a wide range of disciplines so that holistic concepts, issues of conflicting moral interests and common ground for action can be adequately explored. The possibilities are numerous and their exploration urgent because theoretical foundations and education in turn influence practice. I will now, therefore, turn my attention to some possible development of bioethics practice.

A New Look at Bioethics Practice

What would bioethics practice look like within the context of an ecological model of the discipline? To respond to this question I will take an 'evolutionary' approach. By this I mean I will explore the role of bioethics in transition from a standard model to a new paradigm for practice. In order to do this I will incorporate practical examples derived from my own experience. I will begin with a situation that occurred some fifteen years ago.[140]

In 1990, a large, highly respected city hospital became front-page news on several occasions, not for its usual remarkable contributions to medicine but because of its pressing problems. A nurse had been charged with the abuse of several infants in her

[140] For purposes of confidentiality I will modify, and part-fictionalize, the examples provided except where details are a matter of public record. I will nevertheless, retain the essential features of the situations or cases.

care and a group of doctors was accused of harm to children who were the subjects of a research study for which informed consent had not been obtained. The hospital responded openly to the media, it immediately addressed the specific clinical and research issues, and it began to develop some policies in an attempt to safeguard future patients in similar circumstances. Within a year the hospital decided to set up a clinical bioethics department. At the time only one other hospital in the country had such a department.

Over the past fifteen years hospitals, especially within North America, have established clinical ethics departments or services.[141] Not uncommonly, decisions to do so appear to have been reactionary following public scandals or criticism involving the institutions. In some cases hospital management elected to appoint an ethicist to educate and help staff to identify and better reflect on ethical issues that might arise in the course of their professional practice. Other institutions appointed ethicists because they simply did not know how to handle the seemingly new problems associated with rapid scientific, technological and medical developments. At other times, as Erich and Roberta Loewy point out, "ethicists were hired (and allowed themselves to be hired) as 'hang-out shields' – the inference being that if one had an ethicist or two on board ethical standards would be met".[142] Expectations of the newly-appointed ethicists varied accordingly. They were to work alongside staff in an educative role that involved some challenge around particular issues in order to raise awareness and to provide a framework for decision making. Some were expected to provide answers to medico-moral problems.[143] Sadly, some were expected to provide a moral and, sometimes legal defense, for the minimal efforts of institutions 'to do the right thing'. Whatever their role, however, bioethicists became a part of the establishment. What they were *not* expected to do was to question the goals of the institution itself, either the hospital or the medical enterprise more generally. Nonetheless, as I have indicated in Chapter 1, bioethicists

[141] More recently, industry, government agencies and some businesses have followed suit, employing ethicists.
[142] Loewy and Loewy, "Use and Abuse of Bioethics: Integrity and Professional Standing," 85.
[143] Ibid.: 77.

began to contribute a helpful and sometimes challenging presence at a clinical and research level.[144] Moreover, as the conditions of clinical and research practice became more complex, the contributions of those knowledgeable in matters of medicine, philosophy and law, and skilled in the processes of analysis, counseling and mediation, were welcomed.[145]

Bioethicists became fully engaged in clinical settings and in the stimulating immediacy of modern research and medicine. They became members of institutional ethics review boards charged with assisting in the ethical analysis of cutting-edge studies, balancing the risk/benefit equation of scientific proposals. They became involved at the bedsides of critically or terminally-ill people and in the clinics providing care for infertile couples or those facing high-risk pregnancy. They helped doctors and counselors weigh the potential benefits and risks of predictive genetic testing, and they advocated for patients wanting treatments not agreed to by doctors, on the basis of a principle of autonomy. Little wonder that environmental concerns were not prominent on the bioethics agenda. Pierce and Jameton, however, highlight an important and often overlooked point. They claim:

Bioethics, by putting the concerns of patients and clinicians in the larger

[144] The appointment of ethicists, was in particular, often resented by doctors and nurses who rightly understood their professions to be intrinsically moral. They did not see that an ethicist, and especially one from outside the medical profession, could be as effective as a well trained, intelligent and compassionate doctor or nurse. In some circumstances the concern was well founded and reinforced. Since even today there are no uniform criteria for the education and training of bioethicists and no professional mechanism for examination or credentialing, they represent a diverse and variously competent group. Some bioethicists demonstrated an inadequate understanding of science and medicine necessary to comprehend the complexity of the moral issues involved. Many showed little understanding of the personal sensitivities involved in the doctor/patient relationship and of the moral struggles encountered by health care professionals in the complexity of modern medical practice. Others, without specific training lacked the counseling and mediation skills of the health professionals with whom they were working. Still others set themselves up as having the answer to problems encountered.

[145] For example, when the Health Care Consent Act was substantially changed in the Province in which I work, greatly impacting the practice of health professionals caring for patients deemed "legally incompetent", ethicists were asked to carry out region-wide education programs to clarify the new legislation and to analyze its moral underpinnings.

> framework of modern liberal philosophy with its central tenets of individual freedom, scientific objectivity, and social justice, has been building a bridge for the last thirty years between individual cases and a larger conceptual framework.[146]

Consider, for example, the following case:

> *Peter and Ann James, a couple in their mid-thirties is expecting their third child. They already have two young daughters aged 5 and 3 years. Their marriage and family life is happy. Ann's current pregnancy has been problem-free. She is now in the last weeks of her pregnancy and is due to attend her final antenatal appointment. En route to the appointment Peter pulls in to a garage to fill the car with gas. When he returns, Ann has begun to experience premature labor pains. She becomes extremely frightened and Peter drives as rapidly as possible to the hospital where within 3 hours their healthy baby is delivered. Ann, however, continues to bleed profusely. Doctors do all they are able to stop the bleeding but some hemorrhaging continues and to save her life Ann requires blood transfusions. She refuses them and her husband supports her fully. They are both committed Jehovah's Witnesses. The medical and nursing staff is exceedingly distressed. They feel they must intervene. They plead with the couple and speak to them of their other children. They talk with the couple about their own deep feelings of moral compromise. Ann becomes increasingly weak and the staff advises Peter to seek counsel which he does. The hospital bioethicist provides support to both the staff and the family helping them to better understand one another's moral perspectives and thus helping to maintain the relationship necessary for continuing care. Ann continues to resist transfusion and Peter is in agreement with her. They pray together and the nurses, despite their own intense distress, maintain a gentle and respectful presence with them until Ann dies (alternative non-blood products were used but were ineffective).Despite his terrible loss Peter is deeply grateful to the staff. Some months later he returns to the hospital with his two small daughters to once again thank the staff for honoring his family's faith position. The bioethicist with pastoral care staff continues to work with the nurses and doctors who are experiencing unresolved moral and emotional distress.*[147]

I believe that cases like this illustrate the point made by Pierce and Jameton, that bioethics has for some considerable time, been building bridges between individual concerns of patients and clinicians and larger conceptual frameworks. Here, for example, discernment in the particular case is carried out with reference to the wider liberal framework which upholds the notions of self-determination, religious freedom and personal sacrifice. What is significant here, I contend, is that the clear linking between individual cases and larger conceptual frameworks, already a characteristic of bioethics, suggests bioethics' capacity to now help build the bridge between patient care, research

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[146] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 82.
[147] This is an account of a case which occurred in 2002 in a Canadian city.

and the wider ecological and social contexts that are becoming increasingly clear.[148] This, progression, however, will require a considerable shift in the practice of bioethics.

I will now use two cases similar to those provided by Pierce and Jameton to begin to develop a clearer model of bioethics practice within an ecological framework.

Mike Pearson is a diabetic who requires two insulin injections daily. For many years he has used disposable syringes. The newer syringes have recently made the management of his diabetes much easier. Within the past few years, however, Mike has been informing himself about environmental risks. Recently he has read that the plastics used for the production of syringes may be harmful to him in the long term. He approaches his doctor and asks to change to reusable glass syringes. Mike wants to know where he can obtain them and what special precautions he needs to take in terms of sterilization. The doctor attempts to dissuade him, trying to reassure Mike that there is minimal risk of harm to him. Mike persists in his request and his doctor eventually accedes to his request out of respect for Mike's autonomy.

This situation differs little, except in the interpretation of risk, from many others like it in which, out of respect for a person's autonomy, a health care professional accedes to a patient's request for an intervention with which the professional does not agree. The role of bioethics here would not change from the standard model in which the ethicist would argue, usually from analogy, that the competent person's choice should be respected. Another similar case, however, may be quite different.

A patient requests a meeting with the Director of Patient Care. She expresses her concern that the hospital uses disposable cups, plates and cutlery for all meals. She recognizes that there are environmental problems associated with the use of industrial dishwashers but maintains that the environmental burden is considerably less than that associated with the use of disposables. Moreover, such dishwashers have a sterilization function so there is no risk of the spread of infection. She requests that the hospital review its policy and make necessary changes for the sake of the environment and thus in the long-term, for human health.

It is highly likely that in a situation such as this that hospital management would see the patient's request as quite inappropriate, and given bioethics' traditional focus on

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[148] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 82.

individual patient concerns, I suggest that it is doubtful any ethicist would be invited to become involved. Yet as Pierce and Jameton point out these sorts of cases may not be as different as they at first seem. Both have their roots in autonomy. The first case concerns a patient's personal interests and the second is a person's expression of her autonomy in terms of duty. Recent understandings of autonomy as I have earlier indicated, however, have tended to focus solely on respect for a person's wishes and desires. Bioethics has emphasized such meaning. Yet, "dutiful choices can also be made freely".[149] Ought bioethics, therefore, be involved in cases, like the second, in which a person expresses autonomy in terms of his or her duties toward others and toward the environment?

Issues of institutional policy, however, are perhaps best dealt with on an institutional level. An ecological conception of bioethics is concerned that environmental issues and their health correlates be more widely understood and addressed within institutions. Indeed, it is concerned that they become foundational for institutional planning, construction, policy and service. This, however, will entail a critical change in the role of bioethics and in the manner in which it is perceived by institutions. Bioethicists will need to find their 'institutional voice' and the venues for its expression. More specifically, bioethicists will need to recognize their primary role as that of a 'questioner '. As Erich and Roberta Loewy state:

> Ethicists annoy people – that is part of their job - by inquiring as to why something the physician, institution or greater community has done in a certain way from time immemorial is done that way. When bioethicists stop making a nuisance of themselves by asking troubling questions and questioning the answer they get they have lost their usefulness.[150]

[149] Ibid., 83.
[150] Loewy and Loewy, "Use and Abuse of Bioethics: Integrity and Professional Standing," 85.

Questioning and challenging in this way on an institutional level is, however no easy matter, given current perceptions of the role of bioethics and the employment conditions of bioethicists. It is especially difficult when there is a mismatch between a paradigm of bioethics that is framed by the integration of human and environmental concerns and an establishment model that is medically-defined and increasingly corporate in function.[151] One recent sign of hope in this area is that in some institutions', boards of directors and senior management teams are now beginning to invite ethicists to provide education and discussion opportunities relating to governance and policy development. This may help to bring issues of environmental concern for institutional-wide policy to the table.[152]

Beyond this, matters prove more difficult, however. Institutions which receive large amounts of research funding from drug or genomic companies or other commercial corporations are not so welcoming of a bioethics voice that may question some of the global and environmental implications of such partnerships. Bioethicists' jobs may be threatened. For in circumstances in which bioethicists are employed by the establishment which they feel obliged, by virtue of their role to critique, there is a potential conflict of interest. To date, appropriate employment conditions for bioethicists have not been worked out although some organizations have begun to examine possibilities to address just such issues as these.[153] Thus, developing an ecological

[151] Daniel P. Sulmasy, "What's So Special About Medicine?," *Theoretical Medicine* 14 (1993).
[152] In some North American hospitals, for example, management teams are holding informal breakfast or lunch sessions with their bioethicists. These are used for discussion of organizational ethics and practical matters encountered by management staff. Some boards of Directors are requesting updates on matters of institutional concern. Bioethicists are sometimes also being invited to report directly to boards on an annual basis.
[153] The Canadian Bioethics Society, for example, has formed a working group to examine the "Working Conditions for Bioethics in Canada". In discussions we have begun to identify the potential problems and those that have already been encountered by members. Some members have advocated that bioethcist's provide consultative services only to health care institutions.

model of bioethics does not come without some cost either to the institutions that embrace the model or to the bioethicists who serve those resistant to such challenge.

Asking questions on a wider level also places bioethicists in new places and circumstances. For to have any practical relevance, an ecological model of bioethics must have its practitioners working alongside, and in mutual dialogue, not only with medical staff but also with colleagues in hospital design, organization, policy development, risk management (with wider conceptions of the notion of risk), waste management, purchasing, pharmacy, and housekeeping to name but a few areas. In practical terms this means that bioethicists, perhaps with environmentalists, might be members of planning committees for the development and construction of new health care facilities, or assigned to management committees of such facilities. Their role might be to ask: What services are priorities in the area in question? On what scale should those services be provided? What impact might the development, building and services have on the environment and what social and health impacts might those have for the local population? What might be the guiding ethical principles for development or management? Pierce and Jameton note that guiding principles for the development and organization of health care facilities might include:

- The provision of health care in ways that minimize harm to human and ecosystem health;
- The architecture, organizational design, strategic planning, management and budget of the facility embody principles of responsibility to nature and future generations;

Additionally, the facility:

- provides ecologically sustainable therapies and products;
- provides services to patients with any health condition but may limit the range of therapies offered in order to reduce ecological impacts, and increase efficiency;
- engages in a continuing process of assessment and evaluation of its services, in

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Others advocate the development of contracts of employment that better spell out the role of bioethcist's working within the institutions.

light of patient need and research into environmentally preferable technologies;
- employs ecologically sound conceptions of health, recovery and rehabilitation;
- encourages staff and patients to live in environmentally sound ways that express a modest level of consumption;
- acts as community educator, advocating principles of sustainability in all aspects of life;
- encourages institutions with which it conducts business and has academic relations to operate in environmentally responsible ways; and
- provides high-quality services at levels inexpensive enough that they can be made equally available to all.[154]

Such principles entail that bioethicists begin to raise issues that have not concerned them before and that they function in new territory with others with whom they have formerly had little professional relationship.

The issues set out above, however, are not the primary considerations for the practice of an ecological model of bioethics. Even considerations of patient care, so central to current bioethics, do not directly hold first place in the practice of an ecological model of the discipline. In fact they have no relevance at all until we are prepared to ask the fundamental question to which I return by way of conclusion: "How best shall we live?" It is the question with which virtue ethics, as I have suggested, gifts a new vision of bioethics for the earth and for humanity. Our questions about health and health care are subsumed under that more fundamental question. Yet in the privileged parts of the world moral concerns about the specific issues relative to advanced health care in particular have often obliterated the more basic question. They have done so because we have succumbed to what René Dubos once called the "mirage of health" – the belief that somehow, someday all disease and death will be conquered.[155] We are only now perhaps beginning to see the results of the pursuit of that mirage in terms of constantly escalating costs and consumption of natural resources and their effects - environmental

[154] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 63-75.
[155] Rene Dubos, *Mirage of Health: Utopias, Progress, and Biological Change* (New York: Harper Colophon Books, 1979), 2. Cited in: Daniel Callahan, "Modernizing Mortality: Medical Progress and the Good Society," *Hastings Center Report* January/February (1990): 28-32, at 29.

destruction, and ever-increasing disparities in health and wellbeing locally and globally.

This problem came to my attention most forcefully when my own work in health care was divided between countries of greatest social and medical privilege and those of the developing world. Just one or two days of travel took me between scenes of starvation, homelessness, environmental devastation and the suffering, disease and death of thousands each day that are the result of those factors, and the gleaming wards of new hospitals in North America. In those wards patients demand investment in physical enhancement procedures to meet the fashion demands of the day while others battle against all odds for immortality through an inordinate faith in new technologies and experimental pharmaceuticals, often against the advice of physicians, at high cost, and secure in the inviolable right of self-determination. The following situation is illustrative:

In one day while engaged in a project in Bangladesh a health professional meets a desperate and physically weak woman outside a small drug store. The woman is clutching a very sick child. She begs money to be able to buy some aspirin to treat her child's raging fever. Later in the same day, the health professional with a colleague leaves the city to carry out some health teaching with village teachers. As the bus pulls out of the city they see a vast number of bodies huddled together on disused railroad tracks. Over a hundred starving people have been left there to die. Continuing their journey into the countryside they smell a terrible stench. Mountains of garbage are piled high in the open sun and climbing in all the mud and debris are tiny starving children, 'rag-pickers', hoping to find something to eat. At a rural school the health personnel carry out simple eye examinations. They discover in several of the children the ocular signs of Vitamin A deficiency, a condition caused primarily by a lack of yellow/orange fruits and vegetables, and a condition which if untreated will rapidly lead to blindness. In many case, the deficiency, because of its widespread effects on epithelial tissues, will result in death from respiratory tract infection. The condition is cheaply and easily managed but the 5 cents needed weekly over several months for treatment is not available. Moreover, prevention is difficult because local agricultural land that might have provided gardens has been taken from the villagers to build a factory. In any case the villagers have no money for seeds or plants. The factory that has been built has heavily polluted the nearby river. The fish have died and the water can no longer be used for drinking. Even when boiled it is unsafe. Beside the river a family lives under a piece of plastic stretched over some branches. They are all malnourished. Their two children are battling severe infection. No services are available to them.

Some three days later one of the health professionals has returned to her own country. There she is asked to provide a bioethics consultation. The wife of a dying elderly man is demanding the use of mechanical ventilation and antibiotics of her choice

for her husband if he develops another respiratory infection. Doctors and nursing staff have tried to gently discuss with her the medical facts. Further use of ventilation, they explain is simply prolonging the patient's dying process. So too is the use of antibiotics beyond any that might provide some alleviation of respiratory distress. The requested interventions will not resolve the problem of his increasing infections. Already, and despite very careful nursing care his skin is breaking down causing sores. Every time the nurses try to turn the patient he screams in pain. His wife is refusing the use of morphine to adequately control the pain. She maintains that as her husband's legal substitute decision-maker she has a right to such choices. The medical staff has been reluctant to invoke the law to change decision-makers. They want to avoid the setting-up of an adversarial relationship at a time of great suffering. Financial costs of treatment are substantial and increasing. The human costs to all concerned are very high.

While it usually inappropriate to judge individual situations in this context, the very existence of such a global dichotomy calls for that fundamental question, "How best shall we live?" It is a question that an ecological model of bioethics necessarily calls forth. It is also a question that is not out of place within the boundaries of privileged countries themselves. For within such countries and their health care facilities a failure to pose the fundamental question, results in considerable human costs. As Daniel Callahan observes:

> There is the growing fear of aging and death in the company of modern medicine, perhaps best demonstrated by a rising call for active euthanasia and assisted suicide. There is the risk and vulnerability that greater medical knowledge ironically instills in us. Despite all our talk about death with dignity there is a growing inability to find a way of coming to grips with the reality of death, a reality now seemingly transformed into wrenching choice rather than a deliverance of fate. There is the anxiety occasioned by our capacity to transform our biological condition without a comparable skill to transform our social condition.[156]

Callahan continues: "If we cannot conquer all disease, or avoid all accidents, or overcome aging and death – *not now, not ever* – what should that truth mean for the devising of a health care system?"[157] What should that truth mean for the practice of bioethics? Therefore, the task before us, it seems to me, is to find some better balance, some more coherent sense of flourishing, and only then to envision a concept of health care and scientific progress that helps promote it. Achieving the balance required cannot

[156] Callahan, "Modernizing Mortality: Medical Progress and the Good Society," 28.
[157] Ibid.: 29.

come from within the medico/scientific paradigm that currently has few intrinsic limits. It cannot be helped by a bioethics that is entrenched within that paradigm but it might well be aided by an ecological model of bioethics that calls for a sense of place, right relationship, moderation and the acceptance of the reality of illness and death, for a more fundamental good.

Thus an ecological model of bioethics in practice calls for debate - wide-open, far-reaching public and professional debate.[158] It calls for reflection on who we are and what we should do in the wider scheme of things. Callahan frames the questions of such a debate well when he asks, "What kind of medicine is best for a good society?" and "What kind of society is best for good medicine?"[159] The problem with Callahan's analysis, however, is that it is limited to human society. I will expand his considerations to encompass the environmental dimension in which human society finds its place. What kind of medicine is best for the flourishing of all life? What kind of flourishing is best for good medicine? The answers to those questions may be the following. The medicine that is good for the flourishing of all life seeks to refrain from practices that are destructive of the environment. It promotes an adequate level of good health for the flourishing of human communities. It attempts to guarantee to all people "a decent baseline of public health and individual caring, and then beyond that as much – and only as much – individualized cure of disease" as is compatible with overall societal needs and for the wellbeing and flourishing of the natural world.[160]

The flourishing that is best for good medicine is the flourishing of the earth first. It

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[158] Willard Gaylin, "Faulty Diagnosis: Why Clinton's Health-Care Plan Won't Cure What Ails Us," *Harper's*, October 1993, 57-62.
[159] Callahan, "Modernizing Mortality: Medical Progress and the Good Society."
[160] Here I have modified Callahan's statement on medicine and human society. See: Ibid.: 30.

is the flourishing and health of all peoples and not just the privileged few. It is the flourishing that reminds us that "however insistent" and understandable is "the individual desire to overcome illness and forestall death, that desire must at some point be resisted" so that earth will be sustained and will flourish, hope will be preserved for future generations, "other human ends can be sought and nourished, those that together respond to a full range of individual and social possibilities".[161]

An ecological bioethics through its fundamental questions and challenges has the capacity to contribute to such a vision. Indeed, initiating and leading a process of visioning with a wide range of other professionals and the public may be considered a primary role of bioethicists within a new model of the discipline. In the context of such a vision new priorities for health care may become possible. First, give highest priority to the survival and flourishing of the earth. Bioethicists must become involved in expanding the awareness of the critical interrelationship between environmental and social conditions and health. They must publicly, and with professional colleagues, open up discussion on the moral implications of the interrelationship. To achieve this, bioethcists might sometimes work more widely in the public arena – in schools and colleges, public libraries, and with socially engaged groups. Those bioethicists with theological and/or pastoral training might begin to work with pastors and congregations to incorporate into worship experiences some of the underlying theological considerations and opportunities. They might also provide opportunities for discussion of such issues in Church, ecumenical or inter-faith study groups or meetings.[162] They might work with clergy to familiarize them with the issues and indeed with the current writings on such

[161] I have again here taken liberty with Callahan's words from the above reference to embrace a wider concept of societal good.

[162] For Christian groups an excellent resource is available for parish discussion and practical involvement. See: Tanya Marcovna Barnett, ed., *The Christian Tradition and the Love of Nature: Greening Congregations Handbook* (Seattle, WA: Earth Ministries, 2002).

matters already available within their churches. Additionally, bioethicists may be called upon to become advocates for the integrity of the environment with health in mind.

In terms of human health care itself, bioethicists within an ecological framing of the discipline have a significant role to play in contributing to an adequate level of basic health care for all. In this regard one of their primary functions may be to pose challenging conceptual questions concerning responsibilities for local and global health. One of the strengths of existing bioethics has been to reinforce the belief, strongly advocated by recent Western moral philosophy, that all humans have moral worth. The limitation of this model, however, has been the emphasis it has placed on local application of that belief. By this I mean that our responsibilities have been understood to be largely concerned with our near neighbors. While some sense of concern for those farther away has been vaguely expressed, and sometimes acted upon in a piecemeal manner, there has not been rigorous debate about duties or responsibilities to others on a wider scale. Our perceived responsibilities to others have often been represented diagrammatically as a series of concentric circles, each one representing "a wider but weaker range of moral concern."[163]

Those committed to an environmental perspective argue that while in practical terms, special responsibility to those closest to us is a reality, the balance between close and peripheral relationships must be realigned. Aldo Leopold, for example, argued that the rings of responsibility depicted in the widening circle must be understood to include the biotic community.[164] Importantly, with respect to human health care and bioethics, Pierce and Jameton note that: "the nature of human and ecosystem relationship globally

[163] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 96.
[164] Leopold, *A Sand County Almanac and Sketches Here and There.*

is increasing the relevance of the moral weight of events and the condition of people at a geographical and political distance."[165] This is evidenced by changing disease patterns in the wake of globalization to which I have referred in detail in Chapter 2. What is vitally needed is an espousal of a global concept of health, that is, the recognition that the health of one locale is affected by its neighboring regions and indeed by the health of the wider world.[166] Thus our moral responsibilities for health locally cannot be divorced from moral responsibilities for health regionally and globally.[167] In this context, an ecological bioethics has an important part to play in raising awareness of global health phenomena and in becoming more involved in international discussion and debate.

A commitment to global concepts of health also involves bioethics in a commitment to address issues of health, illness and poverty. For, as I have pointed out in Chapter 2, the two concerns cannot be separated and in turn they cannot be divorced from environmental destruction. Large disparities in health status exist both among and between nations. Although health gains were made across the world during the last century, largely influenced by improved sanitation, housing, education, increased food supply and immunization, as I have earlier indicated some of those gains are now slipping. Sharp declines in life expectancy in large areas of sub-Saharan Africa and the Russian Federation were recorded during the past decade. Infant mortality rates in the world's poorest countries are 25-30 percent higher than in wealthier nations. Child

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[165] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 96.

[166] Supinda Bunyanavich and Ruth Walkup, "U.S. Public Health Leaders Shift toward a New Paradigm of Global Health," *American Journal of Public Health* 91, no. 10 (2001): 1556-58. In this article the authors make clear the distinction between former understandings of international health and new understandings of global health. International health focused on nation-state boundaries. Global health is concerned with health across the world and the increasing links that are becoming clear in the wake of globalization. The reappearance of Malaria in parts of the United States, for example, is thought to be associated with cross-border phenomena such as immigration, poverty and climate change. The recent spread of HIV, SARS and other infectious diseases is thought to be due to the increasing movement of people, goods and services across borders. Fears about the potential spread of Avian Flu are rooted in the same phenomena.

[167] Howard, "Ecosystem Health: Prescribing a New Vision for the Future of Medicine," 12.

mortality rates are 40-60 times greater in poorer countries and maternal mortality is 750-1000 times higher in poor countries than in the more affluent nations. In the wealthier countries too, as I have noted in Chapter 2, health disparities associated with income and access to resources are increasing. Indeed, across the globe, poverty is considered to be perhaps the most important factor influencing health in our day.[168] This is a profoundly moral issue which is central to an ecological paradigm of bioethics.

What then might the responses of such a bioethics be? It seems to me that they certainly differ from those generally associated with standard bioethics. In the case that I presented in Chapter 2, for example, I intimated that one of the roles of bioethics has been to stand with medical colleagues in their demands for increasing funds to support additional resources for medical interventions. Interestingly, as the discipline of bioethics has become increasingly international such discussions have also become commonplace in even the poorer countries where appropriate responses to the greatest and overwhelming health problems have little to do with the availability of medical interventions.[169] Indeed, globally, with the exception of immunization policies, medical care has never been a clear determinant of human health. Rather clear determinants of health include, a healthy environment, education, social support systems, housing, adequate nutrition, employment opportunities, safe workplaces and just income distribution. At the present time many of these conditions are limited or absent the world over. Many local or national governments have in fact withdrawn funding that ensures a healthy society. The medical system itself, given its increasing demands on the public purse for high-tech interventions and an individualized patient centered focus, "takes money away from education, social support and environmental concerns – all

[168] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 99.
[169] Ibid., 105.

determinants of health."[170] An ecological bioethics extricates itself in important ways from bioethics' traditional entrenchment in a medical model so as to be able to address these health problems.

It attempts to work with others to first envision systems of health care that are guided by determinants of health and fundamental public health values.[171] Within such a model bioethicists would be free to contribute to a realignment of the goals of medicine to better meet health needs. It would involve them in policy development which is currently a very limited part of their role, if it is part of it at all. Such policy development would include working together with a wide range of professionals and public representatives towards improved public health and medical paradigms. To reach this point, however, bioethicists in many countries would also have to change their agenda in order to challenge current systems within which unlimited medical services are provided for the wealthiest patients.[172] This would involve bioethicists in advocacy for and participation in public efforts to identify the most needed services in the poorer areas in which they work, relative to the needs of others, and within the capacity of the public budget. In North America, the controversial and yet relatively successful Oregon Plan, illustrates such an initiative. The concept involves the wide engagement of public focus groups with mixed professional groups in the identification of fundamental values in health care for the setting of future goals. In the Oregon process this included the

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[170] Howard, "Ecosystem Health: Prescribing a New Vision for the Future of Medicine," 12.

[171] There is much to be gained the world over by receiving the wisdom of the poorer countries in which public health initiatives have been highly successful - countries such as Sri Lanka, Costa Rica, Paraguay, Morocco and the Kerala State of India. In these areas, key elements of public health have been identified and then acted upon. These key elements include: Women's autonomy, equality and education, a substantial commitment to education, and universal access to primary health care services. See: John Caldwell, "Routes to Low Mortality in Poor Countries," *Population and Development Review* 12, no. 2 (1986): 171-220. Cited in: Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 106.

[172] Reinhard Priester, "A Values Framework for Health System Reform," *Health Affairs* 11, no. 2 (1992): 84-107, at 93.

identification of care for the elderly and disabled, rehabilitation, safety, and emergency care. Health professionals then rated approximately 700 major therapeutic interventions in reference to these values. Once this had been achieved the Oregon legislature authorized the State Medicaid program to cover the highest rated items.[173]

There were, however, significant gaps in the Oregon process that would need to be addressed in an ecological model of bioethics. While highly successful in setting priorities, reducing expenditure, and allowing wider access to publicly-funded health care, it failed to assess effectiveness of the treatments identified. Moreover, it did not include environmental analysis of the agreed interventions and importantly it involved one group of people making decisions for another group, namely the poor who were not well represented in the process. An ecological bioethic as I have described it throughout this work would be required to take account of these additional factors. It might do so by expanding bioethics' involvement in research assessment beyond individual study proposals. This would involve challenging the current medical and corporate focus and funding of the research agenda to ensure the just distribution of research benefits, the exploration of effective initiatives for health, inclusion of studies to determine environmental risk, and the analysis of the efficacy of current medical interventions. An ecological bioethics would also attempt to ensure that the voice of the poor be better represented and heard in health care planning.

In the provision of specific medical care bioethicists working within an ecological model would also be called upon to consider priorities. Daniel Callahan makes the following suggestions. Firstly, restore the, "most ancient of all medical values - that of caring for those we cannot (for scientific or economic reasons) cure" – no one should

[173] Pierce and Jameton, *The Ethics of Environmentally Responsible Health Care*, 77-78.

ever be abandoned. Only then, "pursue in a way that does not strain our general resources those advanced forms of high technology medicine that tend to benefit comparatively few individuals at high cost".[174] This vision calls for a radical shift in perceptions of health and health care that is only possible if it is built upon inclusive debate that brings a richness of voices together.

The radical shift in perceptions of health and health care in turn require a dramatic change in current hospital and professional culture. As I see it, the current primary practices of bioethics - questioning, education and consultation - may provide a valuable framework for cultural change of the kind required. For within a wider construct of bioethics, as I have earlier indicated, I do not see a necessity to abandon or to change practices. Rather, it seems to me, that it is first of all a case of extending the scope of such practices. This may apply to the ways in which hospital and professional culture are challenged just as I have suggested widening the mandate and functions of bioethics beyond hospital and professional walls.

Despite early adversarial relationships between bioethics and medicine in the hospital setting, recent times have seen positive collaboration between the two disciplines. Doctors, other health professionals and bioethicists have been able to work effectively together for the wellbeing and interests of patients and in educational and research pursuits. The role of bioethics has become integral to the functions of the hospital.[175]

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[174] Callahan, "Modernizing Mortality: Medical Progress and the Good Society," 30.
[175] Here I am referring specifically to the North American context.

With reference to a needed shift in hospital and professional culture of particular interest, I believe, is the changing pattern in the consultation role as I have experienced it in my work as a hospital bioethicist. Fifteen years ago all the consultations in which I was engaged were directly concerned with the care of a particular patient. Within the past five years well over half the consultations are requested by professional staff pertaining to their own concerns. During these consultations doctors and nurses in particular express increasing moral distress with respect to their professional practices. Many experience a need to acknowledge the limits of medical science to meet the expectations of patients, their families and of society at large. They speak of being "morally entrapped" by their own successes and by the concepts of medicine to which those successes have given rise. Some staff seek bioethics counsel for the moral residue that remains with them when curative medicine fails. Others feel pressurized to dilute or to abandon the caring role that underlined their initial attraction and commitment to the profession through pressures to pursue treatment at any cost, to conduct prestigious, marketable research or to conform to corporate structures that maintain the hospital enterprise. Essentially, many professionals appear to be questioning the very goals of the medical project in which they are engaged. In turn their reflections tend to call into question the role, functions and scope of the hospital enterprise which is largely determined by current definitions of the goals of medicine. Further, the concerns of these many professionals challenge the marriage of market and medicine that is generated and upheld by such professional definitions.[176]

[176] It is clear, of course, that not all medical professionals reflect upon their work in this manner. Indeed, their very education, training, evaluation and funding often obscure such reflection. My recent experience in bioethics consultation, however, demonstrates that a significant number do in the light of personal and professional moral distress concerning current medical practice. Many others are at least willing to reflect on such issues in an open manner as a part of bioethical discussion.

The experience of such changing dynamics in the consultative role of the bioethicist provide, I believe, a helpful starting point for new emphases in bioethics education and for the expansion of questions that may support shifts in hospital and professional culture that in turn underscore wider conceptions of health and health care, including ecological conceptions, beyond the hospital setting.

At the hospital level, bioethics education for students gaining early clinical experience and for all staff is becoming the accepted norm. Due to curriculum changes and accreditation strategies bioethics education has become mandatory in hospitals. Much of this education is carried out in discussion format. One possibility here is that the range of topics for discussion might expand to capture the professional hopes and/or discontents and moral concerns of many hospital professionals, and in a constructive manner, begin to challenge the goals of medicine and the functions of hospitals. For perhaps too often it seems to be taken for granted that the goals of medicine are well understood and self evident.[177] The questioning function of a wider bioethics is important in this context. For example: What are the appropriate goals of medicine in the here and now? Should there be greater emphasis on the prevention of disease in the first place rather than seeking to respond after it occurs? What are we to understand as "health" in the light of global circumstances? Should "health" have different meanings at different life stages? What constitutes suffering and what is the role of the professional in alleviating or in assisting a person to find meaning within the context of unavoidable diminishment, pain or suffering? Should the scope of medicine include the difficulties of daily living, the existential and spiritual problems faced by people attempting to make sense of living and dying? Should medicine embrace issues of social and domestic

[177] Gebhard Allert et al., "The Goals of Medicine," *Hastings Center Report* Special Supplement, no. November/December (1996): S1.

violence, environmental destruction, injustice and inequalities? In the light of responses to such questions, what is the appropriate role of the hospital in society and for health care?[178] How should we articulate the goals of medicine for the future and what might be the significance of doing so for the content and process of professional education?

Questions of this kind are the sorts of questions that I suggest that an ecological bioethics has the capacity to bring to the professional and institutional setting. Exploring such questions helps challenge the hospital culture and provides a critique of professional assumptions and training. This, it seems to me, is a critical function of bioethics at this time. Exercising this function within the hospital setting holds out possibilities for a needed shift in understandings of health and health care in the light of global circumstances. Through the expansion of the questioning, consultative and educative roles of bioethics, medical professionals and hospital administration may be empowered to open up much needed debate internally. From internal debate and honest articulation of the concerns of professionals, it may be possible to gradually alter social expectations for health and medicine, through improved public participation in the setting of more realistic and more transparent goals.[179]

Thus, in the hospital setting a bioethics liberated from the medical paradigm with a widening of its primary functions may help to "re-humanize care from the top down".[180] A broader approach to bioethics education and consultation in house may assist professionals in a better balancing between cure and care and in the demand for changed circumstances to achieve such a balance. Hospitals might come to have a

[178] Ibid.: S2.
[179] A greater transparency in this way may also help to re-orient the powerful part that the media currently plays in defining public expectations for health care.
[180] Sulmasy, "Catholic Health Care: Not Dead Yet," 46.

more limited role in health care, providing high-tech interventions in a more realistic and appropriate manner that fit wider conceptions of health and broader practices of health and community care. Hospitals might come to be characterized as much for their expertise in natural birthing, rehabilitation, care of the chronically-ill, the mentally-ill, elder care and palliative care as they are currently seen to be centers of excellence in intensive care and technical medicine.[181] This in turn may profoundly impact the curriculum and practices for medical and professional education. The research generated within hospitals might achieve a more even balance between that concerned with developments in genomics or technical interventions and studies that assess the efficacy of such approaches.[182] More research efforts might be directed toward assessment of the qualitative aspects of health and illness, disease prevention and health promotion, studies to improve palliative care and pain prevention and those which seek to find ways to better "manage the morbidity and disability that have come to accompany longer lives".[183] It is to such ends that I suggest the functions of bioethics might now be directed and as I have earlier indicated these in turn will impact the dynamic of the hospital culture and correspondingly the professional-patient relationship. They therefore make way and provide the foundation for possible new bioethical approaches at the bedside.

At the bedside, shifts in hospital and professional culture helped by the functions of bioethics may make possible a fuller discussion of the implications of treatment choices as I have suggested through my examples in Chapter 2. At the present time the only implications that are brought into the discussion are those that impact the patient

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[181] Ibid.
[182] At the present time there is very little research to evaluate current technical interventions, the efficacy of such interventions and importantly, how they impact the wider experiences and hopes of patients or of society. See: Allert et al., "The Goals of Medicine," S18.
[183] Ibid.

personally. The consequence of a debate such as that outlined above makes possible the sensitive and appropriate introduction of environmental, social and resource implications. The assumption in our present articulations of autonomy, as I have earlier suggested, is that it pertains only to individual desires. The impact of the individual choice upon the environment, on the lives of others, and specifically "upon the distribution of health care resources has been considered irrelevant".[184] There is nothing to suggest, however, that many people, given greater sensitization to environmental concerns and the needs of others, might prefer to make choices for the common good. Indeed, it may relieve some of the suffering and burdens associated with the array of medical choices with which we are faced today. An approach to less technological medical management may also release resources for greater investment in palliative care, care for those who are chronically sick, the elderly and those who are mentally unwell; that is, those who are commonly neglected by our fast-paced medicine and its sometime ally, contemporary bioethics. Indeed, a more balanced investment in care relative to cure may make decisions to forego highly technical therapies easier and perhaps for many people, welcome. Moreover, a balanced approach may allow for greater focus on and investment in environmental care, the relief of poverty, public, primary and global health initiatives, more moderate or differing provision of health care facilities and a more just research agenda. The practical implications of an environmental model of bioethics at the bedside are thus far-reaching. If their reach is indeed constitutive of environmental and human flourishing and of hope for a future, then such a model of bioethics has a critical and urgent part to play, beginning now.

[184] Danis and Churchill, "Autonomy and the Common Weal," 26.

Conclusion

Throughout this thesis I have attempted to show that contemporary, dominant conceptions of bioethics are inadequate in the face of current global circumstances. In the light of those circumstances, which I have detailed in Chapter 2 and reiterated briefly in this chapter, we can no longer separate the survival, health and wellbeing of the earth from the survival, health and wellbeing of humanity. If bioethics is to fulfill its purported role with respect to life and health then it must change. The change needed is a conceptual one. I have proposed the extension of an ecological model of bioethics, first developed by Van Rensselaer Potter and more recently articulated in outline by Peter Whitehouse and Daniel Callahan. My hope is that I have begun to provide a more substantive articulation of that bioethics through the development of this work.

Such a new model of bioethics is, I have also suggested in Chapter 4, called for in many recent documents of the churches. The churches have plumbed the depths of a rich theological tradition, substantive detail of which I have provided in Chapter 3, and their contemporary theologians and historians have critiqued and enriched that tradition. They have, I believe, provided a foundation for a new engagement of theology with bioethics; a bioethics for today and for the future. For within the theological tradition, I have described, we have a remarkable model of the crucial interrelationship and interdependence of all life, and a profound call to the sorts of action that are vitally needed today for the survival, health and flourishing of humanity and the earth. As Andrew Dutney remarks: "Today every bit as much as at the time of its emergence ... it is necessary that bioethics be oriented toward a field much broader than medicine as it applies itself to its role as an agent of life and healing. And just as it did when bioethics was taking shape, theology has a useful contribution to make to that service of health

and healing."[185]

[185] Dutney, "Bioethics, Ecology, and Theology."

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